# The Veterinary Record

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## WORK OF THE VETERINARY OFFICER: A REVIEW*

A. DOUGLAS, M.R.C.V.S., D.V.S.M. (VICT.)

A regular stocktaking is a necessary procedure for the proper conduct of any business concern, and I think it might be worth while if we too took stock of our position now and again, to consider carefully and seriously the nature of the work we are doing, its benefit to the community in relation to its cost, what progress is being achieved by the methods adopted, and what improvements can be made. The need for such a stocktaking is clamant to-day amidst the perpetual cry of economy, which to the man in the street means, as a rule, only reduced expenditure, with too little consideration for the possible effects of that reduction.

Our work as veterinary inspectors falls roughly under two headings—contagious diseases of animals and public health—which latter is again sub-divided under the headings "meat" and "milk."

### DISEASES OF ANIMALS ACTS

On the questions of policy in connection with the Diseases of Animals Acts, the local authorities have little direct say, but it is nevertheless competent to consider where we stand. There are now practically only five diseases of prime importance under the Diseases of Animals Acts: foot-and-mouth disease, anthrax, swine fever, sheep scab and tuberculosis.

*Foot-and-Mouth Disease.* — Foot-and-mouth disease has shown a reduced incidence in recent years, and numerous measures have been taken to reduce, as far as seems practicable, the risks of infective material reaching susceptible animals, but no-one with a scientific trend of thought can be satisfied with the present policy, though it is at present undoubtedly the most economical for this country to adopt. That this country is not standing still on the question of foot-and-mouth disease is shown by the recent adoption of the use of serum on incontacts in selected cases, and much research is being carried out in connection with the disease, not only in this country but abroad, and while research workers can never be expected to produce results to order, it is to be hoped that the problems facing them will be solved and this costly disease will be overcome.

*Anthrax.*—Anthrax, I fear, we shall have with us for a long time yet. There is no doubt in my mind that we get most of our anthrax infection in feeding stuffs from abroad, and, such being the case, we cannot expect to get rid of anthrax until these foreign countries, on which we are dependent for so much of our feeding stuffs, take adequate steps to deal with the disease.

I notice in the Ministry's Annual Report for last year that a second case within five years is regarded as probably the result of the former case. We have had a good many such cases in Ayrshire, and I see no grounds, in most cases, for connecting the two outbreaks.

Why is it there are so many more anthrax cases in Scotland than in England? Is it really that there is less of the disease in England, or is it a case of better reporting in Scotland, where a number of counties have special local Orders requiring, in effect, the notification of all unexplained bovine deaths? I am convinced, after 17 years' experience of such an Order in Ayrshire, that the extra cost involved is well worth while in view of the number of cases which have proved to be anthrax in which the owner would not have suspected the death to have been due to that disease.

The most disappointing feature in the control of this disease is the number of "suspected" cases which have proved negative when examined at the Ministry's laboratory. Last year these amounted to nearly 25 per cent. of the cases dealt with as anthrax. Such a state of matters should not exist to-day, and such results justify the measure of control exercised by the Ministry, to which much objection has been taken, both in respect of anthrax and other diseases.

*Swine Fever.*—In considering swine fever it seems necessary to admit that much has yet to be learned regarding this disease, and that our present methods of dealing with it are not in keeping with this scientific age. Diagnosis is not easy and the conditions met with have sometimes made me wonder if we are dealing with a single disease. Is it possible that several diseases are confused under this one name? While, what can appear more futile to the public mind as a measure of control of an infectious disease than simply isolating an infected

* Presidential Address to the Scottish Society of Veterinary Inspectors, Glasgow, October 8th, 1932.

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stock and letting them die? Swine fever requires further investigation and the devising of better methods of control.

*Sheep Scab.*—Sheep scab, in Scotland at any rate, is practically a thing of the past, and what Scotland has been able to do England and Wales should be able to do also, with the co-operation and goodwill of the stock owners.

There are only two points to be considered in connection with sheep scab; one is: "Are the English local authorities justified in requiring the double dipping of Scottish sheep?"—to which I think we can definitely answer "No"; and the other is: "How far are Scottish local authorities justified in requiring the periodical single dipping of sheep under an Order designed for the control of sheep scab?" Both these points appear to show a temerity on the part of the Ministry to dictate to local authorities or to interfere with powers granted to local authorities, in spite of altered circumstances.

*Tuberculosis.*—The last of the diseases on which I propose to comment is tuberculosis. As dealt with by the Tuberculosis Order, only the public health aspect of the disease is touched upon, and not very effectively at that.

The question we must ask ourselves is: "Are the results being obtained justifying the £75,000 paid in compensation last year, *plus* the administrative expenses?" Is that money being put to the best use? You do not pay compensation to the butcher whose bullock is condemned as unfit for food; why pay compensation to the farmer whose cow has become so affected that her milk is a public danger? There is no evidence that after six years the Order is reducing the incidence of the disease, and I am of opinion that it would be more economical to spend the money in an attempt to eradicate the disease.

Among other diseases not scheduled under the Diseases of Animals Acts, but which are causing serious loss to our farmers, are abortion, Johne's disease, and mastitis, to mention only three. In the present state of our knowledge of these diseases, they do not lend themselves to legislative control. As you are no doubt aware, a Scottish committee is meantime investigating contagious abortion, and work is also being done on the other two diseases elsewhere.

Provided the personnel engaged is competent and the work properly co-ordinated, there seems ample opportunity for the sound investment of large sums of money for research into these various diseases, which are so seriously handicapping the dairy industry.

### Public Health

Milk.—To turn now to the public health side of our work, let me take milk first. I heard someone say the other day that no foodstuff was the subject of so much control by law as milk; what are we doing with that little bit of the milk law which is under our control? Our primary function is control of the health of the producing cow. Most of us are trying to carry out more inspections than the legal minimum of once a year, but even assuming that we do two inspections annually, what real control is that over the health of the thousands of cows in our respective areas?

*Notification of Disease.*—The Milk and Dairies Act requires dairymen to notify any cow giving milk liable to infect or contaminate the milk supply. How many of these cows are notified and inspected? In Ayrshire we get a few cases of mastitis reported, but judging from what we find on inspection of the herds, the proportion reported is negligible, and what of the other conditions which come into this category? No doubt conditions have improved, notification of tuberculosis is more frequent, but even in Ayrshire, where we have prosecuted a goodly number of owners under the Tuberculosis Order, the reporting is far from what it should be.

*Education.*—It is largely a case of ignorance and carelessness on the dairyman's part, and I feel we are not doing all we might do on the educational side. I do not need to tell this audience that the farmer is a hard man to drive, but he may be led, and what he needs is education, not only in the relation of the health of his herd to the health of the milk consumer, but in connection with his methods of milk production. To my mind there are three classes of milk producers—the man who knows and who is doing his best for the consumer; the man who would do better if he knew how; and the man who is satisfied in his ignorance and will not be taught—this man can see no sense in what is asked of him, and the only way I can see to deal with him is to remove him from the register. We had set out to make an example of one such man in Ayrshire, but he removed himself from the register before we got that length, though he was prosecuted and fined for failing to comply with several dairy bye-laws as a first step towards removing him from the register. We will all have such men in our areas, and by judicious selection an example made of such men will have a very beneficial effect.

*Pasteurisation.*—In connection with the question of milk control we are faced to-day with the demand in certain quarters for the compulsory pasteurisation of milk other than that from tuberculin tested herds. This question was discussed very fully at the recent Conference at Elgin—so ably presided over by Mr. Begg. Very contrary opinions were expressed, and I will only reiterate the views I expressed then. The danger from tuberculous infection in bulked milk is so great, judging from the figures which

will shortly be published, that I feel it is necessary in the meantime to pasteurise ordinary milk, but that efforts should be made to free our herds from tuberculosis, so that the supply of safe raw milk may be increased.

I do not suggest that this will reduce the need for inspection; in fact, I would like to see a pre-pasteurisation bacterial standard laid down; it need not be high to begin with, but it appears to me to be desirable and it will overcome the fear some folks have of pasteurisation leading to careless methods.

*Graded Milk.*—The second part of our milk control duties refers to graded milk, and as that is the subject of Dr. Leighton's talk, what I have to say on that had better be given as part of the discussion on the paper.

Meat Inspection.—The last branch of our work I have to deal with is meat inspection. Full use is unfortunately not being made of the services of all of us in connection with meat inspection, but that will gradually right itself in the course of time. Most of us are mainly interested in rural areas with numerous small slaughterhouses in which it is practically impossible to arrange for the inspection of all carcasses. Fortunately, there are other factors which make the problem less urgent in country districts, but the centralisation of slaughtering seems to me to be the most urgent need to-day in connection with the problem of meat inspection. Country butchers will never kill in the towns if they can avoid it, and the presence of three or four private slaughterhouses in a small village is a position which can only be overcome by the granting of additional powers to local authorities.

This Society has now been in existence for a little over four years, and the number of regular attenders has been disappointingly small. The absentees have been in the main the losers, for we have had many interesting discussions; we do not publish reports of our discussions, which gives us more liberty to speak, but we are also the losers by the absence of these inspectors, as I feel sure that on many occasions their experience would have been of value to us in these discussions. I would appeal for further support for our Society, which I feel sure is performing a very needful function in providing a forum for the discussion of the many problems arising from the various branches of our duties.

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A newborn female foal that secreted approximately one quart of milk within a few hours after foaling was observed by Hallgren. The composition of this milk was practically the same as mare's milk. Milk from newborn female foals, "witch's milk," no doubt results from abnormal stimulation of endocrine glands, particularly the suprarenal capsule and hypophysis.—*Bio. Abst.*

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November 12th, 1932.

## VETERINARY PUBLIC HEALTH WORK

When the history of the veterinary profession in this country comes to be recorded, the third decade of this century will be noteworthy for the large increase that took place in the number of whole-time appointments made by Rural Local Authorities in England and Scotland.

The medical inspection of the civilian population during the war revealed the poor physical condition of the majority of the citizens and when hostilities ceased the Government took an early opportunity of introducing legislation to improve the health and condition of the people. The national conscience had been awakened and neither effort nor money was spared to make amends for the former neglect. The nutrition of the people became the subject of special study and the importance of milk in the national dietary was recognised. The Milk and Dairies Acts which followed called for veterinary inspection of milk cows and Local Authorities were obliged to make the necessary arrangements. As previous to the war all Local Authorities had been under the necessity of having veterinary inspectors under the Diseases of Animals Acts, the additional duties imposed under the Public Health ordinancies caused the situation to be reconsidered and in many instances it was decided to form a whole-time veterinary staff.

In this manner has grown up a Local Government Veterinary Service which already exceeds in numbers the Veterinary Staff of the Ministry of Agriculture.

In Scotland the need for organising the members of this Local Government Veterinary Service has been felt and the formation of the Scottish Society of Veterinary Inspectors has been the result.

The Presidential Address of Major Douglas to this Society, which we publish in this issue, though addressed primarily to its members, will be read with interest by all members of the profession who are engaged in either Central or Local Government Service. Many interesting questions are raised which closely concern the profession and every effort should be made to investigate and answer them, as what the profession asks to-day the public may ask to-morrow.

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It is disappointing to learn that 25 per cent. of the cases of suspected anthrax reported to the Ministry were found to be negative when examined at the laboratory. Possibly an extension of the system of local orders requiring the notification of all unexplained bovine deaths would lead to reports being received earlier by the Veterinary Inspector, and in this way the number of cases in which the blood has become so polluted that diagnosis by microscope is practically impossible would be reduced.

In view of the great increase in the rearing and fattening of pigs which will follow recent changes in our fiscal policy, the time is opportune to reconsider the plan to be followed in dealing with outbreaks of swine fever. It would be most unfortunate if the recovery which is looked for in pig production, etc., were retarded by archaic measures and a policy of negation.

When one reads in the Report of Proceedings under the Diseases of Animals Acts for 1931 that no outbreaks of sheep scab attributed to sheep from Scotland occurred in other parts of Great Britain, it would appear that Scotland has some cause for complaint against English Local Authorities requiring the double dipping of Scottish sheep.

Regarding tuberculosis, the veterinary profession has already considered the question raised by Major Douglas and the Scheme which has been drawn up by the N.V.M.A. provides the only alternative that justifies the expenditure of public funds.

The problems that confront the profession in such diseases as contagious abortion, Johne's disease, and mastitis, are engaging the attention of research workers at home and abroad, and results will be obtained in time; but an enormous gulf stretches between the research worker and the stock-owner which it is the duty of the veterinary profession to bridge.

Major Douglas did well in his address to stress the educational aspect of our work, and his remarks on this subject have a wider application than only to those engaged in Public Health work. We have long since discarded the view that our mission as veterinarians was confined to curing the ills of the flesh, and the education of the stock-owner in the prevention of disease in animals should be encouraged.

The wave of economy which is sweeping over the country is causing enquiry to be made into all services, and only those which can justify the expenses they entail will ultimately survive.

# Clinical Communications

## DIAPHRAGMATIC HERNIA IN A STALLION*

F. H. MANLEY, B.V.Sc., M.R.C.V.S.
Department of Agriculture, Cyprus

*Subject.*—A thoroughbred stallion, aged sixteen years.

*History.*—The animal was highly strung and frequently clambered with his fore-legs on the wall of his paddock.

There was no previous history of colic.

At 4 p.m. the horse served a mare and at 6 he was let out into a small paddock. A few minutes later a groom found the horse down and evidently in severe pain.

*Symptoms.*—An hour later, when I examined the animal, he was down and rolling about, obviously suffering acute pain. He was got to his feet without difficulty. The respirations were accelerated; visible mucous membranes appeared normal; the pulse was weak and thready; the extremities were cold. There was much restlessness—going down and getting up, as occurs in certain cases of colic, was noticed. After an injection of atropine and morphine the horse became quieter and remained standing, although the respiratory distress was still noticeable. The animal died three hours after symptoms were first noticed.

*Post-mortem.*—Blood examination was negative.

The abdominal cavity was opened in the usual way. When the spleen was being removed a rupture in the diaphragm became obvious. In the left side of the tendinous portion there was a hole, the diameter of a cricket ball, through which two loops of the small intestine passed into the thoracic cavity. There was some extravasation of blood into the tissue of the diaphragm in the region of the rupture.

The chest cavity on this side was now opened and revealed approximately fifteen feet of the small intestine lying between the lung and the wall of the thorax and extending up to the left side of the heart.

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## HÆMORRHAGE INTO THE OPTIC TRACT IN A HORSE*

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*Subject.*—A half-bred racing pony, entire, aged four years.

*History.*—There was no previous medical history. The horse was reported to have become

* Cases presented to the North Wales Division, N.V.M.A., at Llanrwst, July 29th, 1932.

excited in his loose box, when he reared and fell over backwards, apparently striking his head on the wall.

*Symptoms and Treatment.*—The horse was examined by me about two hours after the accident occurred. He was down and appeared much distressed. Blood was oozing from both nostrils and both ears. The temperature was normal. There was a slight filling of the parieto-frontal articulation on the left side. This area was very sensitive to gentle palpation and when it was touched the animal endeavoured to plunge forwards. An enema was given. Ice packs were applied to the head and in about half-an-hour the animal was assisted to rise. He walked very unsteadily, and usually in circles.

The following morning the animal was still standing, and he was then confined to a darkened loose box. A slight swelling was now observed over the left wing of the atlas. Blood had stopped flowing from the nose and ears but both eyes were acutely inflamed and a whitish discharge was present. There was opacity, none of the usual images being observable, and the horse was quite blind.

A low diet was recommended, potassium iodide was given internally, and the local eye treatment consisted of the application of a lotion of zinc sulphate and drops of atropine and cocaine.

The acute inflammation of the eyes quickly subsided and after a month the opacity had cleared to such a degree that the three images were visible. Now after five months, though the eyes are apparently normal, blindness persists and it is presumed that there is some damage to the optic tract.

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## TREATMENT OF FISTULOUS WITHERS AND POLL EVIL

F. C. SCOTT, M.R.C.V.S.
Pontefract

The finding of the *Onchocerca cervicalis* in these conditions by different observers, and the almost absolute absence of the conditions in pit horses, negative the older theory of causation, *viz.*, direct injury.

It is common knowledge that in both cases there is a sac, which has a distinct lining and which secretes (or at any rate, is responsible for) the contents. In treatment, unless this sac or the secreting surface is removed or effaced, recovery will not take place. Operative procedure is rather a severe undertaking, and the attendant hæmorrhage militates against complete removal.

Incision and caustic injections are uncertain and may need to be carried out indefinitely. The use of caustic plugs or "coring," in my hands, overcomes the difficulties met in the other methods.

There is nothing new in the method, and perhaps we are too prone to forget some of the old but useful remedies. Such caustics as corrosive sublimate or arsenic are spreading in their action and are likely, if used extensively, to cause poisoning; they have been used in these conditions and it is the thick lining which is present, which prevents their undue extension or poisonous effects occurring. Zinc chloride I have found both safe and efficacious.

*Method of Procedure.*—An incision about four inches in length is made; this is sufficient to admit of the cavity being packed with swabs, yet not so large as to permit the swabs to fall out. After incision, the cavity is drained; in poll-evil, where the cavity may be small, the curette is used.

One then prepares a solution of five ounces of Burnett's fluid in a pint of water, and places sufficient cotton-wool in it to fill the prepared cavity. The cotton-wool is then packed tightly into the cavity, and if necessary a retaining suture is inserted.

The case is then left for seven or eight days, when a spatula is all that is necessary to enable one to dissect away, without hæmorrhage, the leathery lining which the caustic has so completely prepared for removal.

After treatment consists of simple washing.

Since adopting this line of treatment it has rarely been necessary to visit the case more than twice.

Old-standing cases must be treated on their merits, but I feel confident that if all cases were dealt with on these lines, in the first instance, there would be no old-standing cases.

The caustic plug, well packed in, follows the contour of the cavity, destroys the lining, stimulates a zone of reaction in the healthy tissues, and when the sequestrum is removed a granulating surface is left, which heals comparatively rapidly.

The strength of solution mentioned is a minimum; quite often the strength has been increased to—Burnett's fluid 1 part; water 3 parts.

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### "DESTRUCTIVE IMPORTED ANIMALS"

The trustees of the British Museum at a recent meeting considered the serious position in the country in relation to the musk-rat menace, and particularly to the fact that, now that the keeping of musk-rats is prohibited except under the strictest regulations against their escape, the musk-rat farmers have turned their attention to the coypu or nutria, an aquatic South American rodent. The latter animal is as large as a beaver, but has a tapering tail; it lives in burrows, and its fur is brown, soft, and dense.

The trustees decided to recommend to the authorities concerned that the nutria should, like the musk-rat, be scheduled as an animal the import of which is prohibited and which shall be kept only under licence.

# Reports

## MINISTRY OF AGRICULTURE: EDUCATION AND RESEARCH DIVISION

### WORK FOR THE YEAR 1930-31

Instead of being published as a separate volume as in previous years, a brief account of the activities of the Division is given in the Journal of the Ministry. The September issue deals with Part I: Research (including local investigation and advisory work); the October issue deals with Part II: Agricultural Education; and the November issue will embrace Part III: Horticulture.

**Part I: Research.**—Work is reviewed under five sub-headings, *viz.*: (*a*) National Agricultural Research; (*b*) Imperial Agricultural Research; (*c*) Local Investigation and Advisory Work; (*d*)Miscellaneous Experimental and Demonstrational Work; (*e*) Scholarships, Fellowships, etc.

The total annual State expenditure is met from three sources, *viz.*, the Development Fund, the Empire Marketing Fund, and the Ministry's Vote. Of this, £293,000 was provided from the Development Fund, £30,000 from the Empire Marketing Fund, and £9,000 from the Ministry's Vote, making a total of £332,000 expended on research during the year.

(*a*) The Ministry's activities under National Agricultural Research are principally concerned with the main research programmes carried out by the various research institutes, aided by annual block grants from the Development Fund, all of which are set out in table form as appendices to the Report. Of the grants relative to Animal Pathology, £5,100 was allocated to the Royal Veterinary College, where there are five research workers; £12,300 to the Cambridge Department of Animal Pathology (seven research workers); £5,300 to the London School of Hygiene and Tropical Medicine (four research workers). On the Animal Husbandry side, £12,804 was allotted to the Cambridge Animal Nutrition Institute (eight research workers); £1,132 to the Cambridge Small Animal Breeding Institute (two research workers); and £14,300 to the National Institute for Research in Dairying (eight research workers). There are also "Special Research Grants" from the Development Fund awarded annually on the recommendation of the Agricultural Research Council (which has taken on the functions of the Advisory Committee on Agricultural Science of the Development Commission). Under this heading £343 was allocated to the Department of Animal Pathology, Cambridge, for the investigation of the use of B C G vaccine in the protection of calves against tuberculosis, such investigation being carried out by Professor J. B. Buxton and Dr. A. S. Griffiths; £350 was apportioned to Mr. A. D. McEwen and Mr. R. S. Roberts for the investigation of "struck" and gangrene diseases of sheep on Romney Marsh; and £15 to the Liverpool University for investigation into the cause of death amongst ewes at lambing time, by Professor S. H. Gaiger and K. D. Downham.

(*b*) Imperial Agricultural Research Schemes at research institutes are financed from the Empire Marketing Fund. In the main these relate to storage and preservation of meat, fruit and vegetables, but the Empire Marketing Board in 1930 approved of a grant of £4,250 for an extension of accommodation at the field laboratories under the Department of Animal Pathology, Cambridge, and a grant of £1,500 in 1929, to be spread over three years, to the Department of Entomology of the London School of Hygiene and Tropical Medicine for blow fly research in sheep. The Board is also giving a grant of £50,000, to be paid in five annual instalments of £10,000 each, to Cambridge University in aid of the scheme for the development of the Biological and Agricultural Departments agreed between the University and the International Education Board of the Rockefeller Foundation.

(*c*) Altogether £74,834 was spent on Local Investigation and Advisory Work during the year at various centres (15). The number of Veterinary Advisers has been increased from six to 11, the new officers being appointed to Bristol, Cambridge, Midland, Reading and Seale-Hayne centres. Much of the work during the year was concerned with diseases of sheep, though most advisers report demands for specialist itinerary services in connection with diseases affecting poultry. Incidentally it may be remarked that though Veterinary Advisory Officers keep in close touch with the research institutes concerned with their respective subjects, it is within the bounds of possibility that in the near future they will be absorbed in the staff of research institutes instead of being attached to a centre located at an Agricultural College or an University with a Department of Agriculture.

(*d*) Under the Miscellaneous Experimental and Demonstrational Work, the research into foot-and-mouth disease looms very largely. Since the Foot-and-Mouth Disease Research Committee was set up in 1924 a total of £89,500 has been expended. The expenditure during the year 1930-31 amounted to approximately £16,150, of which salaries and wages accounted for £6,015, structural alterations at the Experimental Station, repairs, rates and farming expenses for £2,610, laboratory equipment, materials, animals and miscellaneous expenditure for £7,860, and the expenses of the Committee £35. The work on large animals is

carried out at the Experimental Station at Pirbright, which has now been organised into two main divisions, each with a separate stall to enable more experiments to be conducted simultaneously without increasing the risk of accidental infection. The work on small animals continues to be done at the Lister Institute, the National Institute for Medical Research, and the Public Health Department of the University of Manchester.

(*e*) During the year a Research Scholarship in Veterinary Science was granted to P. S. Watts, M.R.C.V.S., the Institute to which he was assigned being the London School of Hygiene and Tropical Medicine. Normally research scholarships are of three years' duration. On the grounds of economy no scholarships or fellowships are being awarded by the Ministry in 1932.

**Part II: Agricultural Education.**—The work of the year is reviewed under five sub-headings: (*a*) Higher Agricultural Education at Universities and Agricultural Colleges; (*b*) Agricultural Education provided by local authorities; (*c*) Dairying; (*d*) Poultry and Small Livestock; (*e*) Miscellaneous.

(*a*) Hitherto, grants have been on a quinquennial basis, but owing to the present financial situation, they will be fixed from year to year. The grant to the Royal Veterinary College was increased from £3,300 to £5,150 as an interim measure to meet certain urgently needed increases of salary to some members of the staff. With regard to the grant in aid of the School of Veterinary Science attached to Liverpool University, and for which £15,000 on a £ for £ basis was sanctioned in 1924, it has not been possible to carry out the scheme in full. The sum of £953 was paid out during the year, thus completing a total of £10,158, representing the Ministry's contribution up to date. It has also been found necessary, owing to financial stringency, to postpone the grant of £150,000 that had been sanctioned for the rebuilding of the Royal Veterinary College, but in the meantime the Governors are proceeding with portions of the work out of funds available from other sources.

(*b*) The maintenance expenditure by local authorities on agricultural education is very considerable. In England and Wales this amounted during the year 1930-31 to £368,845, the amount of grant provided by the Ministry being £247,506. These amounts show an increase over previous years, as in 1929 it was decided to make special efforts to improve and extend the services provided by county authorities. Instruction for the most part is arranged through Agricultural Education Sub-committees of the councils of counties and county boroughs. During the year, 1,415 students attended Farm Institute courses; 3,766 students attended organised day courses; 9,819 students attended evening classes; and lectures, demonstrations and other meetings amounted to 11,281. During the year county agricultural education authorities awarded 1,841 scholarships at a total cost of £19,919. Altogether 426 whole-time instructors and instructresses were employed.

(*c*) The payment of a bonus to distributors for milk of a high hygienic quality has been extended during the year, and the establishment of county registers of accredited milk producers is likely to facilitate such bonus payments. There has also been a considerable development of the "Milk in Schools" movement, more than 600,000 children receiving milk daily under the scheme.

Nearly 6,000 students were registered as attending during 1930-31 courses of instruction in dairying, and 1,000 students received some instruction in cheese making. Much credit is due to County Agricultural Staffs for the conduct of clean milk competitions, 37 authorities holding competitions, the competitors numbering 1,149, cows to the number of 28,888 participating, 9,067 samples being examined, and 6,210 reaching the designated standard.

(*d*) The poultry industry continues to make a wide appeal. In most counties an expert poultry instructor is employed by the county authority; in some counties there are two instructors. Experimental work conducted under the National Poultry Institute Scheme embraced alternative rations for egg production and other general problems of production at the National Institute of Poultry Husbandry, Newport; Poultry diseases at the Ministry's Veterinary Laboratory, Weybridge; digestibility of poultry feeding stuffs including fatty materials, at the School of Agriculture, Cambridge; Breeding work on poultry and the development of the new "Cambar" breed at Cambridge; experiments on feeding of table poultry at Wye; and in-breeding for egg production at the Northern Breeding Station, Raseheath, which has now been brought to a close as not recommended.

(*e*) Under the scheme for Scholarships for the Sons and Daughters of Agricultural Workmen and others, 150 awards were made during the year, this bringing the total for the ten years 1922-31 up to 1,246, of which 63 were for three or four year degree courses, 91 for two year diploma courses, and 1,092 for farm institute courses.

The steady progress of the National Association of Young Farmers' Clubs has been maintained. There were 137 Clubs in active operation during 1931 with a total membership approaching 3,000. Dairy cattle judging competitions are held for teams of the various clubs at the Royal Show, and at the Dairy Show in London.

J. M.

# INSTITUTE OF ANIMAL PATHOLOGY, UNIVERSITY OF CAMBRIDGE

## SECOND REPORT FOR THE YEAR 1931*

The second report of the Director of the Institute of Animal Pathology (University of Cambridge) consists of eighteen articles covering a wide field of veterinary science. Two of the articles have already appeared in the *Lancet* and *Biochemical Journal* respectively, whilst the others have not previously been published. From the point of view of the reader interested in the research activities of the Institute, the publication of the papers in one volume is admirable, but from the aspect of the specialist, the principle is of less value, for papers of real importance may be overlooked. Such papers, if published in appropriate journals, would reach that particular type of reader most interested.

The " Filterable Viruses " section is represented by a contribution by R. E. Glover on the immunisation of the fowl and pigeon against *Epithelioma contagiosum.*

Section B (Pathology and Bacteriology) includes four papers of bacteriological interest. Two papers on B C G experiments on calves are contributed by the Director (Professor J. B. Buxton) in collaboration with Dr. A. S. Griffith, a member of the scientific staff of the Medical Research Council. The first paper has previously been published and records that the strain of B C G used in their experiments appears to be avirulent for the calf and whether given by the mouth, intratracheally, subcutaneously or intravenously, is able to raise the resistance of the calf to a virulent experimental infection. The second paper (with R. E. Glover) records further experiments and concludes that a double intravenous inoculation of B C G can confer on calves a very high degree of resistance against a dose of virulent bovine culture administered by the same route, or by the mouth. T. J. Bosworth and R. Lovell (London School of Hygiene and Tropical Medicine) record the isolation from diseased calves of the Dublin type of Salmonella which has been shown to cause in man, food poisoning, meningitis and continued fever with septicæmia. This section concludes with a lengthy paper by A. J. Wilsdon on the classification of *Bacillus welchii.* By means of toxin-antitoxin experiments he divides his strains in four types, which he names A. B, C and D, and considers that the use of names such as " L.D. bacillus," *B. paludis*, etc., should be discontinued. His assumption that toxin-antitoxin reactions reveal the antigenic structure of the bacteria concerned cannot be accepted.

In the Biochemistry section, G. D. Shearer and J. Stewart record their observations on the changes in the proportions of some of the principal mineral and other blood constituents in the sheep under various experimental conditions. The same authors have also studied the effects of the feeding of mineral constituents on the chemical content of the blood of sheep. They find that the low calcium content of the blood of sheep fed on some of the hill farms of Northumberland may be raised by providing them with a mineral supplement. M. C. Franklin records work carried out in New Zealand on the effect on the iodine content of the thyroid glands and blood of wethers when dosed with potassium iodide.

J. R. M. Innes has attempted to produce experimental scurvy in the dog and finds that the growing dog does not require vitamin C in its food for normal health and development, and he regards with suspicion the recorded cases of spontaneous " scurvy " in that animal. In collaboration with L. J. Harris, of the Nutritional Laboratory, Cambridge, he records in a paper, previously published in the *Biochemical Journal*, studies of the influence of variations in the calcium and phosphate intake upon the abnormalities resulting from overdoses of irradiated ergosterol. With F. Blakemore, J. R. M. Innes also describes seven cases of multiple hæmangio-endotheliomata of the fowl.

H. R. Allen compares the relationship of glycerine in veal broth to the potency of tuberculin, and finds that whereas the percentage of glycerine in the medium may have a marked influence on the degree of reaction in guinea-pigs, it appears to have no such effect in cattle.

The section of Parasitology concludes the volume with accounts by J. S. Steward of Simulium species attacking horses and cattle in Herefordshire, of certain nematode parasites found in British fallow deer and a list of the various parasites examined by him during the year. This list gives not only the species and host but also the locality in which they had been found. W. A. Wood records experiments on the treatment of parasitic gastro-enteritis in sheep and lambs and finds that in single doses of 5 c.c., carbon tetrachloride proved to be the most efficient drug used. He points out its disadvantage in that it has occasionally been found toxic for sheep in doses of 1 or 2 c.c. when employed in the treatment of liver fluke. The same worker records the effect of oil of chenopodium in the treatment of equine strongylosis, and gives a short account of the size of eggs of some species of sheep worms.

* [(1931.) Second Report of the Director, Institute of Animal Pathology, University of Cambridge. (Heffer & Sons, Ltd., Cambridge. 10s.)]

# DEPARTMENT OF AGRICULTURE, NEW SOUTH WALES*

## CONTROL WORK DURING THE YEAR ENDED JUNE 30th, 1931

At the present time, when by the treaties arranged at Ottowa it is sought to foster and encourage the pastoral industries of the Empire, the above report is of particular interest. As usual, Mr. Max Henry, B.V.SC., M.R.C.V.S., Chief Veterinary Surgeon, and the members of his efficient staff, present a record of work well performed and discuss many matters of practical importance to veterinarians in other parts of the world. It would be impossible in the space at command to deal adequately with the report, which should be studied in detail, for it contains many original observations and experiences. A summary of inter-state traffic indicates the enormous responsibility imposed upon the Veterinary Department in its endeavour to maintain a " clean bill of health."

### Control of Infectious Disease

In considering the control of infectious disease, sixty-nine outbreaks of bovine pleuropneumonia are shown, involving fifteen "pasture protection districts" and four thousand animals of which one hundred and sixty-seven died or were destroyed: " Following on cold and continuous wet weather the disease broke out in several of these mobs at the same time." The number of herds inoculated as a preventive measure during the year was thirty-eight.

Outbreaks of anthrax numbered twenty-two, and attention is drawn to the association of this disease with grass seed—prolific seeding appears to be followed in the late spring and early summer with outbreaks, and again with a second growth and the further seeding of the grasses after mid-summer, anthrax occurred. The cutting up of large holdings, on the other hand, appears to be an important factor in the decline of the disease. Twenty thousand sheep and nearly five thousand cattle were inoculated.

During the year under review 1,672 animals were destroyed on farms or sent for slaughter at abattoirs as being clinically affected with tuberculosis or reacting to the tuberculin test. Under a " tubercle-free herd scheme " nearly four thousand head of cattle were tested, of which twenty-eight reacted, or ·72 per cent. The number of animals found clinically affected with actinomycosis was eight hundred and thirty-three, and as many as three hundred and three were destroyed on account of the presence of abnormal growths.

### Piroplasmosis

Mr. C. L. O'Gorman furnishes some interesting observations concerning piroplasmosis of cattle as it occurred on twenty-seven farms in the Tweed Quarantine Area. The following paragraph will be of particular interest to those dealing with tick control: " The widespread nature of the outbreak and the rapidity with which the majority of the cases occurred suggest a common and simultaneous introduction. The most probable, in fact the only means by which such could occur is by wind. In support of this theory it might be mentioned that all the climatic conditions were favourable to such happening. The early spring had been ideal for the development of ticks, so that there would be a goodly number of seed-ticks (Queensland cattle on Border observed heavily infected with ticks), and was followed by a dry period in which strong north-easterly winds prevailed for some time prior to the outbreaks occurring. All the outbreaks were situated in the direction of this wind, in a zone along the Border approximately eight miles wide, this being regulated by specific gravity. All seed-ticks blown would not readily find hosts, and this would account for some of the more delayed outbreaks. Many may never find hosts and eventually perish, which probably has occurred, as the outbreak appears to have ceased, although they may possibly, though it is not very likely, survive to produce tick fever next summer. It may be argued that, if this is the cause, how is it the same does not occur every year? The explanation is that the necessary conditions are not always present together." The Chairman of the Board of Tick Control contributes a lengthy report, which indicates that 460,224 cattle are under special supervision in twelve quarantine sections. During the year two hundred and fifty-two holdings were also placed in quarantine on account of the presence of lice and ked (tick) infection, involving the quarantining of 338,383 sheep.

### Parasitic Infestation of Sheep

Many interesting observations were made in connection with the treatment of diseases caused by the internal parasites of sheep. The year under review was an exceptionally severe one for internal parasitism. " Copious rains fell throughout the summer and continued right on into the winter. Sheep did not do well during the first six months of 1931, although there was a plentiful growth of feed. This feed was too luscious and lacked nutritive value owing to its too rapid growth. Lung worm in the west was more in evidence than ever previously observed. The infestation was chiefly associated with stomach worm infestation and when treatment for the latter was thoroughly carried out the lung worm ceased to cause trouble. Good results were obtained by intratracheal injections." With regard to treatment for intestinal worms, " the Departmental formula was invariably

* Livestock Diseases Report (No. 7).

recommended, but if owners showed a preference for the more easily administered carbon tetrachloride or tetrachlorethylene then they were given full advice with regard to these preparations. The position with regard to treatment this year is that none of the accepted agents has proved to have a desirable measure of efficiency in some instances." This, and much more of practical interest, should be studied in the original.

Sections dealing with stomach worm infestation in cattle, fluke, poultry disease and dietetic conditions such as toxæmic jaundice, " yellow big-head," toxæmia of pregnancy, plethoric toxæmia, trefoil dermatitis, and the " Swine Compensation Act," are all worthy of note, but cannot be fully reviewed here.

In order that the incidence of disease may be considered in conjunction with the number of stock actually in the State, the Government Statistician's figures for the year ending June 30th, 1930, are given: horses, 534,935; cattle, 2,686,132; sheep, 48,720,000; pigs, 323,499. In a recent leading article in the *Veterinary Record* it was laid down that the successful development of the pastoral industries must be based upon a foundation of good health. If this be true a very heavy responsibility falls upon the Veterinary Department of New South Wales, but the report under review indicates that the veterinary profession in that country is worthy of its task.

Ll. E. W. B.

## SURPLUS OF ELEPHANTS IN UGANDA

In his annual reports for some years the Game Warden has commented on the enormous herds of elephants in Uganda, which have been increasing since poaching was checked. In addition to the natural increase of the herds, it has recently been thought that the elephant population in the Toro district has been augmented by immigrants from the Belgian Congo, where possibly they are subject to heavier shooting.

Elephant control has been in operation for several years, and the animals are kept down by Government hunters and made to respect inhabited areas. This control has now been found to be insufficient in the Toro district, where there are large areas of mountain and forest which give security to the animals and enable them to make raids into the settled parts. It has therefore been decided to shoot some 600 elephants in order to thin the herds and drive them back into the more remote parts of the Toro district.

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## " GENERAL INSPECTOR OF THE VETERINARY SCHOOLS OF FRANCE "

Professor Charles Porcher was appointed General Inspector of the Veterinary Schools of France, at a ceremony held at Alfort, April 16th, 1932. His former position was that of Director of the Veterinary School of Lyon, the parent of all veterinary educational institutions. Professor Porcher has distinguished himself among his compatriots by his studies of milk hygiene and its relation to the health and welfare of the French people.

# Review

[**Veterinary Pathology and Bacteriology.** By S. H. Gaiger and G. O. Davies. Baillière, Tindall and Cox, 7 and 8, Henrietta Street, W.C.2. pp. viii + 610, with 194 illustrations. 25s.]

The aim of the authors, as expressed in their preface, is to provide English-speaking students with a text-book on Veterinary Pathology and Bacteriology. The lack of such a book has been felt for many years, and the new volume will be welcomed by students and, no doubt, by teachers.

It is, of course, impossible to give within the compass of some six hundred pages an exhaustive account of any of the subjects dealt with, but, keeping the aim of the authors in mind, that is not a disadvantage. It would perhaps have been better had some title been selected which would have indicated more accurately the scope of the book.

The volume is divided into three parts, which deal with (i) General Pathology, (ii) Specific Diseases, and (iii) Special Pathology. There is an appendix of about 30 pages devoted to outlines of laboratory technique. The largest section of the book is the second, and this deals with diseases caused by bacteria, fungi, protozoa and viruses, and those of uncertain etiology. As these are covered by some three hundred pages it is obvious that the information is imparted in a very concentrated form. Nevertheless, there is little or nothing omitted that the student should know.

The volume is freely illustrated and the great majority of the figures are very clear. In some instances it would have been an advantage had the reproductions of photomicrographs been on a larger scale and at a higher magnification. There is always a risk that in the reproduction of photomicrographs under low magnifications the screen used in preparing the blocks will spoil the fine detail. While an experienced microscopist would no doubt recognise the nature of the lesions shown, for example, in figs. 11 and 168, it is doubtful whether these figures would convey a very clear idea of the nature of the lesions to a student. In a few instances slips appear to have been made in the degree of magnification shown under illustrations. A comparison between figs. 13 and 36 illustrates this. In the section dealing with the bacteria the authors have adopted with slight modifications the nomenclature of the Society of American Bacteriologists. This, no doubt, accounts for the constant use of the unfamiliar-sounding term " tubercle bacterium." It is perhaps fortunate that this will not invalidate the commonly-used abbreviated name for this

organism. No doubt the publication of this book will materially help to popularise the newer methods of classification and nomenclature of bacteria.

The statement made in the last paragraph on page 262 to the effect that mammary tuberculosis is in the nature of a cirrhosis is scarcely accurate. The interstitial tissue produced is not a fibrous one, but is composed of cells of the same type as those which make their appearance in tuberculous lesions in other organs, namely epithelioid, endothelioid, or plasma cells as they are variously called. It is unfortunate that the liver of the pig was selected to show the microscopic appearance of nutmeg liver, as the normal fibrous tissue produces a false accentuation of the lobulation.

Slips here and there suggest that the preparation of the volume was a little hurried. There is inconsistency in the use of brackets at the top of page 320. A word, or words, are missing in the third line of Chapter xxiv, and in several places letters have dropped out. The long experience of one of the authors as a teacher is clearly shown in the lucid manner in which the material is presented, and the student will be saved many hours of drudgery in "taking notes."

The volume is of handy size, clearly printed, and attractively got up.

## SPECIAL MILK FEES "PENALISING INITIATIVE"

Strong criticism was made at the last meeting of Kidderminster Rural District Council of the anomaly created by the requirements of the Milk (Special Designations) Order of 1923, under which farmers pay £5 fee for a licence to sell certified milk, and £1 1s. to sell Grade A. (T.T.), Grade "A," and Grade "A" Pasteurised, in addition to meeting the veterinary surgeon's bill every three months.

Mr. C. S. Trow (Chairman) considered that the initiative of a farmer providing graded milk should not be penalised in this manner. A man who did anything towards wiping out tuberculosis should receive a fee from the County Council, not pay one.

It was decided to ask the County Council to bring the matter before the Minister of Health, suggesting not only the waiving of the licence fee, but payment of part of the veterinary surgeon's fee in addition.

* * * * *

Rich estimates that the direct and indirect animal loss from contagious abortion in the United States is $175,000,000. In a commercial herd he divides the losses as follows:—Butter fat loss, 39·1 per cent.; calf loss, 17·1 per cent.; depreciation, 2·9 per cent.; sterility, 20·9 per cent. In pure-bred herds, he divides the loss as follows:—Butter fat loss, 17·7 per cent.; calf loss, 41·2 per cent.; depreciation, 20·1 per cent.; sterility, 18·3 per cent.; veterinary expenses, 2·7 per cent.—*Cornell Vet.*

# Abstracts

**[Clinical and Experimental Research on the Normal and Drug-influenced Movement of the Uterus in the Living Bovine at the Puerperium.** Benesch, F., and Steinmetzer, K. *Wiener tierärztl. Monatsschr.* 1931. Vol. 18, Nos. 1, 3, 7, & 19, and 1932. Vol. 19, No. 3. (pp. 71.)]

In view of the great frequency and importance of dystokia and post-parturient troubles in cattle, the authors set out to discover by experiment the extent to which the puerperal uterus is able to be influenced by therapeutic measures designed to procure involution, which is conspicuously subnormal in such cases.

In their introduction the authors draw attention to the pitfalls associated with comparative experimental work and its interpretation. In the matter dealt with in this paper, for instance, one is misled if one supposes that factors established by experiment on small laboratory animals also hold good for cattle. This paper describes work performed on cattle and, as the graphic method for recording results was utilised, the work is directly to the point and the practical value of it assured; anyone can inspect the results of the experiments as illustrated on smoked paper and draw conclusions himself.

In the complete work recorded in this series of papers the involution of the uterus of 75 parous bovines was studied by means of an apparatus consisting essentially of an air-filled football bladder placed in the cavity of the uterus and connected by tubing to a kymograph system recording changes in pressure on a moving smoked paper. The actual apparatus was found to be very sensitive and even showed pressure changes caused by accessory factors such as respiration, rumen movements, etc. Individual results were obtained from periods varying from shortly after parturition to twelve days thereafter.

### I. *Graphic Illustrations of Normal Labour in the Involution Stage.*

As a basis for experiment 43 normal involutions of the uterus were first studied and the following physiological information was obtained. Directly after parturition the uterine contractions are most energetic, last individually for 80 to 120 seconds and recur at intervals of 3·5 to 4 minutes (8-9 contractions per half hour). Rectal examination shows the contractions to be of a peristaltic nature, starting at the apex of the horns. These strong contractions have for their object the expulsion of the placenta: after this is accomplished the activity continues as before and does not begin to lessen

till about 20 hours post-partum. During the second day the contractions are irregular in amplitude and periodicity, about five occurring in a half hour. During the third day regularity and rhythm are no longer in evidence; small contractions occurring now and then. On the fourth day involution is practically complete, no definite contractions being recorded by the graphic apparatus of the authors. It is interesting to note that uterine activity is increased by the act of sucking by the calf.

II. *Is Labour adversely influenced by Epidural Anæsthesia?*

All writers on epidural anæsthesia have reported that it does not effect the uterine contractions, as the calf is normally born and the afterbirth is expelled in the usual time. The authors have gone further than clinical observation and in this article describe work which proves that the activity of the uterus during all stages of labour, including the post-parturient (involution) period, is in no way hindered by epidural injections of a local anæsthetic. A cow was kept under the influence of epidural anæsthesia for a period of some six hours—from mid-labour until the afterbirth was expelled—three doses of tutocain being given at appropriate intervals. In addition, five cows in different stages of the puerperium were subjected to epidural anæsthesia and their uterine contractions recorded on the kymograph, and the proof necessary to support the above clinical observations was obtained.

III. *Do Secale (Ergot) Preparations act beneficially on the Puerperal Uterus of Cattle?*

Most writers of textbooks on veterinary obstetrics allege a field of usefulness for ergot, Stoss and Harms alone evidently not being quite satisfied with it. Clinical reports on the use of ergot preparations in veterinary literature are scanty and disagree markedly. The authors therefore performed careful experiments on 22 cattle in order to obtain more reliable information. Several preparations of ergot, including both extracts of the whole fungus and isolated alkaloids were tested by different modes of administration on puerperal cattle. The preparations included various proprietary ones—" secoin " (Firma Chinoin, Vienna), " ergotin " (Firma Merck, Darmstadt), " ergostabil " (Oesterreichische Heilmittelstelle A. G., Vienna) and " gynergen " (Sandoz). The graphic method was again employed and the significant result that ergot is without any value as an ecbolic was regularly obtained. The kymograph records show this clearly. In some of these cases pituitary extract was given some time after the ergot and it never failed to stimulate the uterus very greatly. " Gynergen," which is the alkaloid ergotamin, had a slight positive effect in two out of five cases, but only just so. In an overdose it caused circulatory trouble particularly of the skin of the udder. Van der Kaay, in a similar experiment, also reported no ecbolic action of ergot or " clavipurin," a preparation of it. Much confusion in the literature is evidently due to the fact that much experimental work with ergot has been performed on isolated living uteri, in which the regular finding is a positive one. This is a reminder that one cannot draw conclusions as to the behaviour of the whole from observations made on a part only.

IV. *The Increasing of the Uterine Activity by Pituitary Extracts.*

The posterior lobe of the pituitary body (hypophysis) secretes the uterus-stimulating hormone, which is believed to pass into the cerebrospinal fluid and not into the blood stream. In connection with this work it was desired to find out whether pituitary extract acts on the puerperal uterus and for how long one dose remains active, what is the best dose for cattle, what is the best mode of administration and whether repeated doses are desirable. Various commercial preparations of pituitary extract were tested by the authors.

The authors experimented on 30 healthy puerperal cattle and on five puerperal cows affected with retentio secundinarum. Pituitary extract was also applied to a further 16 cows, which had previously been given ergot preparations (see above). Four whole pituitary extracts and one posterior lobe pituitary extract were tested. Their names were : " pituisan " (Sanabo-Chinoin, Vienna), " hypophysin " (I. G. Farbenindustrie A. G., Leverkusen), " pituglandol " (Roche, Basle), " thymophysin " (Chemosan-Tewega, Vienna) and " orasthin " (I. G. Farbenindustrie A. G.), this being the posterior lobe extract.

The results of the experiments performed are illustrated very clearly by a table and in addition certain of them are described in detail, accompanied by smoked paper pictures. The practical conclusions are as follows : (1) pituitary extract is a valuable uterine tonic for cattle with a most strong action in the first four days of the puerperium and a definite action up to the seventh day p. p. After this time the uterus is no longer sensitive to its action; (2) the international unit is the important factor in dosing and for cattle the best is about 30 such units (this corresponds to 10 c.c. of the common extracts on the market). It is of no advantage to go beyond this dose during the first four puerperal days, but up to 50 or more units may be desirable at a later time in order to produce the desired result. Repeated doses

do not injure the tissues of the animal in any way; (3) pituitary extracts stimulate the uterus either by increasing the frequency and depth of contractions (early) or by raising its tonus (late); (4) pituitary extract can be applied subcutaneously, intravenously or epidurally. When given subcutaneously it increases the force and frequency of the uterine contractions: the response is greatest directly after parturition and can be obtained till the third day p.p. Results begin six to ten minutes after administration, are at their maximum during the following two hours and then gradually fall to zero by the end of the fourth hour.

When given intravenously the immediate result is uterine tetany, which lasts for about ten minutes to be succeeded by fairly strong rhythmic contractions lasting for 20 to 30 minutes. This effect is observable up to the sixth day p.p. After that time the only effect is a slight increase in tonus.

When given epidurally—Benesch is the first to describe this method—pituitary extract has a similar effect as when given subcutaneously but with a longer-lasting effect, which is procurable up to the sixth day p.p. The contractions are increased two-fold above the normal. Results appear two to five minutes after injection and for the first ten minutes the contractions are very deep and follow without the usual pause between each. After this period they "calm down" and continue strongly for about two hours, lasting individually for two minutes with pauses for relaxation in between. The effects do not wear off until the close of the sixth hour after dosing; (5) the authors' work showed that all preparations tested by them possess a similar potency, with the exception that "orasthin" proved to be best: it is to be preferred on account of its lack of undesired powers such as are possessed by whole pituitary extracts. [It is to be emphasised here that the above applies to cattle and there is no ground for supposing that the same holds good for other animals: it certainly does not do so for dogs.]

In the treatment of retention of afterbirth two things are necessary: local antiseptic and antiputrefactive treatment must be applied to the uterine cavity and the atonic uterus must be stimulated to contract and rid itself of the decomposing membranes. Research on the first of these factors has resulted in the production of many good preparations and it may be claimed that the authors of this work have solved the second factor, as the result of their experiments with pituitary extracts in their cases of retentio secundinarum are strikingly successful. In these five cases the retention extended from 15 hours post-partum to four days p.p., and in each case the uterus, which was atonic (absence of the normal rhythmic contractions), was made to contract rhythmically by the pituitary extract. This activity was of similar intensity to that observed in normal cows. The authors state that, if the uterus fails to respond to pituitary extract epidurally, the prognosis is very grave.

V. *The Increasing of the Uterine Activity by Quinine.*

Veterinary literature on the use of quinine as a uterine tonic is not extensive, so the authors decided to experiment on cattle. After one dose of pituitary extract the uterus is insensitive to repeated doses for many hours and the object of this part of the work was to find out whether uterine contractions caused in the first place by pituitary extract could be made to continue after the effect of the latter has worn off. It was also desirable to find out whether quinine is useful as an ecbolic by itself. Twenty tests on 17 normal cows were performed and the results were positive in each sense. Quinine bihydrate was employed in all cases and gave the best results when applied epidurally or subcutaneously. A dose of 1 gram per 100 kg. body weight in 5 per cent. aqueous solution was found most suitable. Larger doses paralyse the uterus and, if given epidurally, act as a local anæsthetic. Quinine may also be given intravenously or *per os*. The effects begin most quickly after intravenous or epidural administration (five to 15 minutes): they begin ten to 20 minutes after subcutaneous administration and after 30 to 40 minutes after dosing *per os*. The duration of the action is one to one-and-a-half hours, two to four hours and seven to nine hours respectively after intravenous, subcutaneous or epidural and *per os* administration. In a few tests performed by the authors, quinine had no marked action but a uterine response was obtainable in each case by pituitary extract. Quinine is not effective if given during the period of activity caused by a previous dosage with pituitary extract. Although these experiments were performed on normal animals, the authors are confident that quinine is also valuable in disease cases—retentio secundinarum. They regard quinine as a useful drug to furnish to farmers with instructions to employ by *per os* administration in indicated cases; it is active during the first five or six days of the puerperium. As a complement to pituitary extract quinine should not be given before the seventh or eighth hour after the administration of the latter.

J. E.

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**[Cholesterol of Metabolism in Disease.** Gardner, J. A. *Brit. Med. J.* August 27th, 1932.]

This paper is a good short review of our knowledge of cholesterol and its association with disease. The writer alludes to the fact that cholesterol, which to some extent is an integral

constituent of all cells, organs and fluids of the body, may vary in quantity under normal physiological conditions, *e.g.*, in pregnancy the cholesterol content of the blood may be increased above normal. The author shows that a cholesterol cycle exists. Cholesterol is a constant constituent of all cells and when these cells are broken down during metabolic processes the cholesterol is not excreted as a waste product, but is utilised in the formation of new cells. Thus one function of the liver is to break down dead cells and eliminate their cholesterol in the bile. In the intestines the cholesterol is re-absorbed along with the bile salts and carried by the blood to the various centres and tissues for re-incorporation into the constitution of the new cells. It is suggested that the insoluble cholesterol is absorbed in combination with choleic acid, the latter having the property of converting many insoluble substances such as fats, etc., into soluble compounds. There is no precise information, however, as to the functions of cholesterol in the economy of the cells or of the whole organism.

An examination of the blood of women during pregnancy leads to the following results: (1) that the free cholesterol of the plasma increases during pregnancy up to a maximum at about the thirteenth week whilst the ester cholesterol decreases; (2) this is followed by the reverse change—a decrease in free cholesterol and in increase in ester cholesterol to about the normal values at parturition.

Pathologically it is found that in infective conditions at the height of fever the cholesterol of the blood is subnormal. In cases of biliary obstruction the plasma cholesterol is at first low but if the obstruction persists there develops a hypercholesterolæmia. A high blood cholesterol value also occurs in starvation. In the case of nephritis exhibiting the "nephrotic syndrome," marked by diffuse parenchymatous degeneration, heavy albuminuria, changes in the plasma proteins and with œdema as the chief symptom, a hypercholesterolæmia is present. Hence a high blood cholesterol value occurs in cases of subacute and chronic nephritis of long duration. It is not found, however, in cases of interstitial nephritis, in arteriosclerotic kidney or in arteriosclerosis. In myxœdema the cholesterol content of blood may be increased by nearly 50 per cent. above normal. Hypercholesterolæmia also occurs in certain cases of diabetes. Deposits of cholesterol occur in the tissues in certain diseases such as chronic nephritis, Niemann's disease, atherosclerosis and xanthoma. These depositions may be studied histologically. The chemical structure of cholesterol and its relationship to the bile acids is discussed in the paper.

W. R. W.

**[Gas Gangrene Infections of Sheep: Passive Immunisation.** McEwen, A. D. and Roberts, R. S. (1932.) *Jour. Comp. Path. and Ther. 45.* 3. pp. 212-223.]

Many practitioners will wish to read this paper in conjunction with that presented by McEwen to this year's Congress of the N.V.M.A. During the 1932 lambing season further cases of gas gangrene in sheep have been studied, following upon the investigations into the ætiology of the disease from which the conclusion was drawn and recorded (*Jl. Comp. Path. and Ther.*, *44*, 180) that *B. chauvœi* was the common causal micro-organism against which prophylactic measures should be taken. The results of this year's work are confirmatory, as is seen from the summary here given of the bacteriology of the cases examined.

The fact that the disease is irregular in its incidence renders it unlikely that active immunisation would be practised by owners, but prophylaxis by passive immunisation of individual ewes receiving assistance at lambing (parturient ewes suffer more than other sheep) would be undertaken. Experimental gas gangrene in sheep following upon intramuscular inoculation with cultures of *B. chauvœi* has been averted by the inoculation of hyperimmune serum prepared against ovine strains of *B. chauvœi* when the serum was inoculated subcutaneously before, simultaneously with, or even four hours after the inoculation of culture, and by the intravenous inoculation of serum eight hours after infection. Further, when the inoculation disease has been allowed to progress until symptoms are acute and a fatal prognosis can be given from the symptoms shown, the disease may be overcome by the intravenous inoculation of large quantities of serum.

These results warrant the use of immune serum in the field on cases when there is reason to suspect that a *B. chauvœi* infection may be or may have been acquired.

W. B.

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**[On Articular and Osseous Rouget of Sheep.** Professor Carré. *Bulletin de L' Académie Vétérinaire.* Vol. 5. No. 7.]

In two previously published communications Professor Carré announced, for the first time, the occurrence in France of the bacillus of rouget of the pig (*Bacillus erysipelatis suis*) in the joints of sheep in infected flocks. In New Zealand, Hopkirk and Gill denounce as a veritable scourge a joint infection of lambs by a bacillus which, judged by their description, leaves no doubt as to its nature although they hesitate to identify it with the bacillus of rouget. The fact that swine erysipelas is unknown in New Zealand, while the number of infected lambs is legion, is disconcerting. However, many

workers who have studied the affection recognise the bacillus of rouget as the specific agent of the malady.

From July, 1930, to June, 1931, the author was able to identify it in six different localities. Many sporadic cases doubtless occur which are attributed to accident. It is otherwise when the percentage of animals affected amounts to from 10 to 23 per cent., of which some lose much of their value while a certain number die. Thus in one flock of the Somme of 235 lambs 30 died and 25 were sold at half their ordinary price. The losses were about 12,000 francs. In reality the number of affected lambs was much higher as the owner was informed by the buyers that at the abattoir numerous cases of arthritis were found among apparently normal lambs.

On May 28th, 1931, a six-months-old lamb was given an intravenous injection of 3 c.c. of a culture of rouget bacillus isolated from a pig by Professor Lesbouyries. From June 6th to the 12th the animal was lame on the left foreleg and showed general stiffness, going on its knees and remaining down most of the time. On the fourteenth the lameness had disappeared and since then the patient's gait was normal. On December 15th, 1931, seven months after the inoculation, the animal was killed. Neither to the view nor to palpation did the explorable joints show lesions; however, on removing the skin a little dilated synovial *cul de sac* was found on the outside of each hock, cultivations from the content of which gave the bacilli of rouget in pure culture. It is certain that these lesions would not have been found if the examiner had not known the history of the case.

The youngest subject on which the experimental diagnosis of rouget has been made was 15 days old. It was sent with another of the same age. Both were very lame and neither could stand up—the joints appeared to be normal. They were both killed. One had an abscess at the umbilicus and synovia from several of its joints gave on cultivation pus staphylococci. In the other lamb there was no trace of umbilical infection; from the knee and stifle synovia yielded on cultivation a microbe killing the mouse in five days by septicæmia and agglutinating anti-rouget serum, thus proving its identity with the bacillus of rouget. A third lamb from the same flock with the same symptoms was found to have infection of the navel and miliary abscesses of the liver; while synovia from the right knee gave a culture of *Bacillus pyogenes*, that of the left knee and hock yielded streptococcus in pure culture—the same animal cultivating different pyogenic germs in its joints.

Practical interest attaches to these findings. It is evident that no single treatment suffices for every case of arthritis in lambs. One conclusion may, however, be drawn: the necessity of applying a navel dressing. According to Hopkirk and Gill there are different modes of infection; they blame castration, branding and docking as affording ports of entry for the bacillus.

In one flock that had been gravely infected the owner was induced to dress the navel and give an injection of anti-rouget serum to the new-born lambs, and this was carried out during the lambing season December, 1931, to January, 1932, in a flock of 250 lambs. On January 21st the owner brought a six-weeks-old lamb suffering from arthritis of the right knee —this was found to be streptococcus infection due to badly or too lately applied navel dressing. This was the only case. Specimens of osseous lesions found in lambs from this flock, the lambs having been kept in the laboratory for a year, were shown to the members present.

One of these lambs had exactly the gait of an old cabber—over at the knees. It lay for the most part, progressing on its knees when seeking its food. The other had a marked deviation of the left hind limb, which formed an arc, with the convexity outward, its summit being the hock. On its dissection there was found luxation of the articulation. There was, of course, no flexion and the subject lay with the limb extended and on its right side. The general condition of these lambs was good and on *post-mortem* the only lesions found were articular and osseous. Most of the epiphyses, but especially those of the femur, tibia and radius, were riddled with numerous holes, like a sponge. The bony heads seemed enlarged: there were no exostoses. The diaphyses, cut perpendicularly, showed the wall one-third the normal thickness. Five plates extended from the inside of the wall perpendicularly and with other plates formed vacuoles. The specimens having been boiled in solution of carbonate of potassium, no histological examination of the lesions was possible. Search for the bacilli in the marrow and in the spongy tissue was indicated, and it is proposed to do this in some fresh specimens.

W. R. D.

### Arsenobenzine Series of Drugs in the Treatment of the Protozoal Diseases of Animals

**Good results are said to have been obtained with neosalvarsan, cacodylate of soda, stovarsol and various other drugs of the arsenobenzine series in trichomoniasis in the various species of gallinaceous birds, in coccidiosis in birds and rabbits, and in some of the protozoal and parasitic diseases of dogs. They have a specific effect in human and rabbit syphilis. They may be introduced intravenously, intramuscularly, hypodermically, intraperitoneally or *per os*. For injection the soluble salts should be used.**

# N.V.M.A. Divisional Reports

## CENTRAL VETERINARY SOCIETY

### ANNUAL GENERAL MEETING

The Annual General Meeting of the Central Veterinary Society (Central Division, N.V.M.A.) was held at 10, Red Lion Square, W.C.1, on the evening of Thursday, October 13th, 1932.

Prior to the election of the in-coming President, the chair was occupied by the retiring incumbent, Major Hamilton Kirk. There were also present Lieut.-Colonel E. P. Argyle, Captain L. S. Balls, Mr. W. Brown, Colonel H. Greenfield, Messrs. J. H. Holmes, H. D. Jones, G. H. Livesey, Captain G. Dunlop Martin, Professor J. McCunn, Mr. W. Perryman, Captain R. Scott, Captain R. J. Stow, Major F. J. Taylor, Captain W. K. Townson, Mr. R. A. Willett, Professor J. G. Wright and the Hon. Secretary (Captain J. F. Macdonald), together with Lieut.-Colonel T. E. Burridge, Major A. N. Foster and Captain E. E. Jelbart as visitors.

The minutes of the 1931 Annual General Meeting, having been published in the *Veterinary Record*, were taken as read and were confirmed and signed, on the proposition of Mr. R. A. Willett, seconded by Mr. Jones.

### CORRESPONDENCE

(1) From the following gentlemen, apologising for their inability to attend the meeting: the President, N.V.M.A. (Lieut.-Colonel P. J. Simpson), and expressing good wishes for the Society and the new President; Mr. H. E. Bywater, Professor James Macqueen (suffering from a bronchial cold); Dr. Tom Hare, Mr. D. T. Reid, Veterinary-Colonel Graham Rees-Mogg, Mr. G. A. Tomlin, Mr. F. W. Willett, Mr. J. Willett and Professor G. H. Wooldridge.

(2) From Mrs. Montgomery and her boys, sincerely thanking the Society for the message of sympathy sent on the death of Major R. E. Montgomery, and of their appreciation of his life and work.

(3) Letters of resignation from Mr. W. W. Golding, of Hertford (on his retirement from practice); Mr. E. Lionel Clarke, of Richmond (inability to attend); Mr. D. Johnston, of Lewes (on leaving Surrey for East Sussex); Lieut.-Colonel B. L. Lake, of London, W.; Mr. H. W. Steele-Bodger, of Tamworth (inability to attend); and Captain A. L. Wilson, of Clapham Park (on his retirement from practice).

In connection with these letters of resignation, the meeting gladly accepted the President's offer to approach Colonel Lake personally with a view to securing withdrawal of his decision to resign, and that of Captain Balls similarly to interview Mr. Clarke.

Mr. Livesey observed that the Society usually received a crop of resignations at the beginning of its year, and he thought it would be a good thing if the Hon. Secretary were empowered to use his discretion and to write to every member writing to resign, requesting him to reconsider his decision, unless the letter of resignation disclosed a most valid reason for so doing.

Mr. Livesey's proposition was seconded by Captain Stow and carried unanimously.

Subject to this action being taken in suitable instances, the remaining resignations were accepted, with regret.

(4) From the N.V.M.A., as follows:—

(*a*) Dated June 29th, 1932, informing the Society that the Council of the N.V.M.A. had remitted to the Finance and General Purposes Committee, for consideration and report, the resolution forwarded with the Society's letter of June 23rd recommending that the N.V.M.A. should collect evidence, lay information and be complainants on behalf of any member of the Association who desires to lay a charge of advertising or other misdemeanour against a fellow member of the profession.

(*b*) Dated August 17th, 1932, informing the Society that the Council, N.V.M.A., had come to the conclusion that the subject of the resolution does not come within the province of the Association.

(*c*) Dated October 6th, 1932, relative to the desirability of establishing early contact with any local branch of the R.S.P.C.A. which had not yet been approached in the matter of making arrangements for the treatment of animals of the poor.

Concerning this item, it was reported that several members had been approached by local branches of the R.S.P.C.A. with a view to the institution of such arrangements. It was thereupon decided that no further steps should be taken for the time being.

(*d*) Dated October 10th, 1932, stating that the revised Articles of Association of the N.V.M.A. provided that all Past Presidents at the end of their term of office automatically became Members of the Council, and that consequently Professor Macqueen was now a permanent Member of the Council. Under these circumstances, it was felt that the Society might desire to take advantage of the opportunity thus presented to nominate another member to represent it on the Council of the "National."

On the proposition of Dr. McCunn, seconded by Captain Townson, it was unanimously agreed to nominate Captain L. S. Balls as a Member of Council, N.V.M.A.

(*e*) Confidential letters, dated October 6th, 1932, consideration of which was deferred to the December meeting of the Society.

(5) From the Secretary of the National Horse Association of Great Britain, detailing certain modifications, favourable to riders, which the

Association had obtained from the Office of Works in the regulations for horse riding in Richmond Park. The letter expressed the hope that the N.H.A's. activities in this connection met with the approval of the Society, and invited comments thereupon.

Mr. Walter Perryman said that, as the representative of the Society upon the Council of the National Horse Association, he should like an expression of opinion from that meeting sent to the N.H.A., because such would be very encouraging to that body, who were taking every possible step to help horse owners and to maintain the position of the horse in the country.

He might perhaps be allowed to give the meeting a summary of the work done at the June meeting of the Council of the National Horse Association. In regard to the Richmond Park Regulations, the First Commissioner proposed to draft regulations for approval by Parliament which will give him power to close or restrict the use of Richmond and Bushy Park to equestrians at certain hours, the fixing of which will depend upon circumstances. The intention was to close the Park at 12 noon, but following a meeting of horse riders, the sending of letters of protest, and the reception of a deputation by the First Commissioner of Works, the regulations had been modified. The Office of Works appreciated very fully the views of horse riders as submitted by the deputation, and would not exercise the right to close the park more than was absolutely necessary for the preservation of the turf.

In regard to Wimbledon Common, proceeded Mr. Perryman, notice boards having gone up thereupon, it was resolved at the Council meeting that the Association send a letter thanking the Conservators for the great pleasure that rides through the woods afford to horse riders, and offer to co-operate with them in preserving the common.

The Society would thus see, concluded the speaker, that the National Horse Association were doing everything that was possible to safeguard and promote the interests of horse owners and equestrians generally, and he thought a letter of commendation and thanks should be forwarded to the Association for having organised a deputation which had proved eminently successful and for the privileges that had been gained through the action of the Association.

In reply to Captain Balls, who enquired if the N.H.A. could help in the matter of the prohibition of riding on Kenley Common, Mr. Perryman said that whatever complaint was laid before the Association was taken up as strenuously as possible. It was to be noted that much of the work done by the Association was on a voluntary basis: it was a most economically run institution and one in every way deserving of the Society's full support.

The proposition that a letter of appreciation be sent was seconded by Mr. Livesey and carried with acclamation.

*Nominations.*—The following nominations for Fellowship of the Society were made: Lieut.-Colonel T. E. Burridge (c/o Glynn, Mills), proposed by Captain Balls, seconded by Captain Townson; Mr. S. F. J. Hodgman (Beckenham), proposed by Mr. R. Cornish Bowden, seconded by Dr. McCunn; Lieut.-Colonel G. P. Knott (Horley), proposed by Principal F. Hobday, seconded by the Hon. Secretary; Mr. Manuel Jose Torres (Kenley), proposed by Captain Balls, seconded by Captain Townson; and Mr. E. G. White (Warwickshire), proposed by Principal F. Hobday, seconded by Dr. McCunn.

## HON. SECRETARY'S REPORT

The Hon. Secretary (Captain J. F. Macdonald) presented his report for the year 1931-32 in the following terms:—

"During the past session there have been held four Council Meetings, the Annual General Meeting, the Dinner-Dance, seven General Meetings, and one Outdoor Meeting at the Zoological Gardens.

"It is a regrettable fact that each year a reduction in the number of Fellows attending the General Meetings has to be commented on, and this year is no exception: an average attendance of 28 Fellows and six visitors does not speak well for our keenness and enthusiasm. In the previous years the figure was 31, and in 1929-30 the average number was 32. I should be glad to hear any suggestions to remedy this gradual decay—personal appeals by officers of the Society do not yield any results. One cannot, however, leave this subject without complimenting many of our country members, who attend with great regularity, in spite of the inconvenience involved to themselves.

"Eighteen elections have taken place, as against three resignations and four deaths, and while this gives us a total of 246 Fellows, it must be remembered that a considerable number of these are overseas members. It is a matter for congratulation that the number of elections is so well maintained, but it is noted with regret that few of those recently elected ever attend the meetings, and I would ask all proposers of new Fellows not merely to obtain signatures on the nomination papers, but also to bring the nominees to Red Lion Square.

"The following is a list of papers read during the session: (1) 'X-rays in Small Animal Practice,' by the President; (2) 'Common Joint Conditions in Canine Patients,' by Mr. Lewis Gabriel, M.R.C.V.S.; (3) 'Some Nervous Diseases Affecting the Hind Quarters of the Horse,' by

Mr. W. Perryman, F.R.C.V.S.; (4) 'The Examination of the Horse as to Soundness,' by Major T. Hicks, M.R.C.V.S.; (5) 'Observations on Canine Distemper Prophylaxis,' by Major T. Dalling, M.R.C.V.S.

"The supply of *post-mortem* specimens continues to be excellent, and they provoke much useful discussion. Our thanks are due to those gentlemen who are sufficiently enthusiastic to bring these specimens, and also to those who have presented papers.

"In conclusion, I would briefly point out that the Society, while strong numerically, does not receive that personal support from its members which it deserves and which is so vitally necessary to its success."

The President, commenting upon the Hon. Secretary's report, said that they would note that, on the whole, the report was a very favourable one, except in the matter of the attendance, which was a serious point. It was in consequence of the appearance of that reference in the report that the Council had asked them to consider that evening how attendances at General Meetings might be increased. It was most regrettable that a society of that importance should be experiencing decreasing attendance.

The report was received and adopted, on the proposition of Captain Townson, seconded by Captain Stow, and the Hon. Secretary was congratulated upon its terms.

*Balance Sheet.*—The Hon. Treasurer (Dr. McCunn), in presenting the Balance Sheet, which had been circulated, said that for the first time it was really a Balance Sheet, in that last year the Council of the Society gave him permission to settle two years' accounts, thereby enabling him to rectify the position that had hitherto prevailed, of their being always one year in arrear with their payments. Despite the relatively heavy payments thus made, however (these the Hon. Treasurer detailed), they had a balance in hand at the bank of £57 18s. 7d. —and that was a balance in reality, in that they had no outstanding debts; moreover, they had a satisfactory amount of money coming in. The Council had given permission for the investment of funds, and, as the current year's subscriptions would more than cover their expenses, he had suggested that the sum of £50 should be invested in order to add to their income. Mr. Stroud was therefore consulting with their financial manager and he thought that Consols to the value of £50 would be purchased.

There was a good increase in the number of payments by banker's order, and he hoped that more Fellows would make use of that facility.

The President observed that Dr. McCunn was to be congratulated on instituting a system which enabled him to produce a Balance Sheet indicative of the exact financial position of the Society; also upon having so substantial a balance, despite the heavy expenditure incurred in eliminating all outstanding debts. (Hear, hear.)

Mr. Walter Perryman moved a vote of thanks to the Hon. Treasurer for his thorough-going work in bringing the finances of the Society up to date. This was seconded by Mr. Jones and supported by Mr. Livesey, who observed that for many years past he had been agitating for the reform that Dr. McCunn had brought about. For the first time, the Society could see at a glance exactly how it stood financially.

The vote of thanks was accorded with enthusiasm, and the Balance Sheet was received and adopted, on the proposition of Captain Townson, seconded by Captain Dunlop Martin.

*Appointment of Scrutineers.*—The Hon. Secretary and the Hon. Treasurer were appointed, on the proposition of Professor Wright, seconded by Captain Townson.

## Election of Office-bearers

*President.*—The Chairman informed the meeting that at the last meeting of Council it was unanimously decided that their new President should be Captain Roger Stow. (Loud applause.) Captain Stow needed no introduction to them: many kind things were said about him at the Council meeting and it would be redundant to repeat them, but he would like to emphasise one point about Captain Stow: during all the years in which he had been a Fellow of that Society he had been a very regular attender, and they could think of no factor which was more likely to strengthen the life of a society such as that than regular attendance—in which vital matter he thought Captain Stow had set many of them a very fine example. (Hear, hear.)

He had no doubt that Captain Stow was then feeling the trepidation which he himself had felt a year ago, when he was given "twelve months in the first division"—(laughter)—and he wanted to tell him that very soon after he took the chair he began to realise that the Fellows were very generous indeed in the way that they received him and his shortcomings; he could therefore assure Captain Stow that he would have a very happy year of office. (Applause.)

Before he left the chair (continued Major Kirk) he desired to express his thanks to Captain Macdonald for his valuable help and support, and to the Fellows for their great kindness to him.

The motion having been carried with acclamation, the retiring President inducted Captain Stow, wishing him, on behalf of the Fellows, a very successful year of office.

Captain R. Stow thanked them very much for honouring him in that way, by electing him as their President. He was acutely aware of

his shortcomings for that exalted office, but at the same time he would do all in his power for the Society during his term of office. (Hear, hear.) He was afraid they would notice a great difference, in that he had to follow, in Major Kirk, a man who could talk—(laughter)—but he believed that his chief duty was simply to conduct the meetings in a respectable manner and to keep order when necessary.

It was his pleasant privilege and duty to propose a very hearty vote of thanks to Major Kirk for the excellent manner in which he had fulfilled the duties of his office as President during the past year. He was sure that Major Kirk had " put his back into the job " and had made a signal success of it. (Hear, hear.)

As he (the President) would have an opportunity of addressing them on another occasion, he did not propose to say more at that time, but would ask them to show their high appreciation of Major Kirk's splendid work in the chair.

Captain Dunlop Martin desired to have the opportunity of seconding the vote of thanks to Major Kirk, because he had had the pleasure of inducting him to the chair when the latter succeeded him. He was confident that all would agree with his assertion that the prediction he had then made that Major Kirk would have a successful year of office, had been abundantly fulfilled. (Applause.)

Major Kirk, in acknowledging the enthusiastically accorded vote of thanks, expressed his keen appreciation of the vote and of the terms in which it had been commended to the meeting. At the same time, when he noted the drop in the attendance, he could not help feeling that he had fallen short in some way (" No, No."). Be that as it might, they had to take steps to see that the attendance declined no further. He thanked them most sincerely for their kindness.

*Vice-Presidents.* — The retiring President, together with the following (elected by ballot): Mr. H. C. P. King, Dr. A. L. Sheather and Professor J. G. Wright.

*Council.*—The Council was elected (by ballot) as follows: Lieut.-Colonel E. P. Argyle, Captain L. S. Balls, Mr. H. E. Bywater, Mr. H. D. Jones, Mr. G. H. Livesey, Captain G. Dunlop Martin, Professor James Macqueen, Mr. J. W. McIntosh, Mr. W. Perryman, Captain W. K. Townson, Mr. R. A. Willett and Professor G. H. Wooldridge, together with the officers (*ex-officio.*)

*Hon. Treasurer.*—Dr. J. McCunn (re-elected).

*Hon. Secretary.*—Captain J. F. Macdonald (re-elected).

*Trustees.*—Mr. E. L. Stroud, Captain S. Villar, Mr. J. Willett (re-elected).

*Hon. Auditors.* — Professor J. G. Wright (Auditor Member of Council) and Lieut.-Colonel P. W. Dayer Smith (re-elected).

*Attendance at General Meetings.*—The meeting now gave prolonged consideration to the question of the means by which the attendances at the General Meetings of the Society might be increased.

It was eventually decided that a transcript of the reporter's notes of the discussion should be furnished to the Council, a special meeting of which should be called to deal with the matter in the light of the suggestions put forward therein.

*Annual Dinner.*—It was agreed that a dinner-dance should be held, on the same lines as last year's highly successful function.

The President informed the meeting that at the recently held Council meeting it was decided that the following should serve as the Dinner Committee: The Hon. Treasurer, the Hon. Secretary, Major Kirk and Professor Wright.

It was now agreed to add Captain Balls to the Committee.

*The Victory Medal.*—Under the heading of "Any Other Business," the President announced, amid loud applause, that the Council had decided to award the Victory Medal this year to Major-General Sir John Moore. Presentation of the medal would, as usual, be made on the occasion of the Annual Dinner.

The according of a very hearty vote of thanks to the new President for his successful conduct of the business brought the proceedings to a close.

J. F. Macdonald, *Hon. Secretary.*

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## NORTH WALES DIVISION

### MEETING AT LLANRWST*

A meeting of the North Wales Division, N.V.M.A., was held at the Victoria Hotel, Llanrwst, on Friday, July 29th, at 2.15 p.m.

Owing to the unavoidable absence of the President (Mr. Cane), the chair was taken by Mr. W. Hall Savage. The following members were present: Messrs. Cartwright, T. Hughes, W. Jones, W. O. Jones, Lewis, Wynn Lloyd, W. T. Rowlands, Dr. Share-Jones, Messrs. Wynne and H. V. Hughes (Hon. Secretary). Mr. F. H. Manley, of Cyprus, an old member of the Society, was also present.

Apologies for absence were read from the President and Messrs. Booth and Edwards, Principal Hobday, Mr. Llewelyn Jones, Dr. Montgomerie and Mr. Hugh Williams.

The minutes of the previous meeting were taken as read and were confirmed.

#### Correspondence

The Secretary read a letter from Mr. Hugh Williams, thanking the members for their condolence in his bereavement.

* Received for publication November 1st.

The Secretary read correspondence which had taken place between Professor White, Bangor University College, and himself regarding the question of the duties of Veterinary Advisory Officers. It was agreed that the Council of the N.V.M.A. be informed regarding the correspondence which had passed between the Ministry of Agriculture and Professor White concerning the duties of Veterinary Advisory Officers, with a view to its being published.

A letter was read from the Council of the N.V.M.A. regarding the insertion of articles in the public press dealing with Veterinary Science. The members were invited to endeavour to secure the inclusion of an article in the press of their respective districts.

The Secretary said that he had received a letter from the Secretary of the Lancashire V.M.A. suggesting that the Society co-operate with the Lancashire Division and with the North Midland Society in endeavouring to secure Llandudno as the venue for the N.V.M.A. Congress of 1933. It was agreed that the Secretary inform the Lancashire and North Midland Divisions that the North Wales Society would be pleased to co-operate with them in urging the claims of Llandudno as a venue, on the understanding that those Societies would be prepared to share any obligations which might be incurred.

*Benevolence.*—The report of the Victoria Veterinary Benevolent Fund was circulated and it was agreed to subscribe £2 2s. for each of the years 1930-1 and 1931-2.

*Council, N.V.M.A.*—The President and Dr. Share-Jones were elected to represent the Division, with the Hon. Secretary, on the Council of the N.V.M.A. for the year 1932-3.

*Election.*—On the proposition of the Hon. Secretary, seconded by Mr. Wynn Lloyd, Mr. H. Burrow, of Birkenhead, was nominated a Fellow of the Society.

*Paper.*—The Chairman then called upon Professor Share-Jones to give his address on "Some Aspects of Veterinary Education."

[Dr. Share-Jones' paper is not yet to hand, but will be published, together with a report of the ensuing discussion, in an early issue.—Ed., *V.R.*]

*Vote of Thanks.*—The Chairman then proposed that a hearty vote of thanks be accorded to Professor Share-Jones for his address. This was seconded by Mr. R. L. Lewis and carried with acclamation, Professor Share-Jones briefly acknowledging the compliment.

*Cases and Exhibits.*—An account of two interesting clinical cases was then read to the meeting by Mr. Manley, and a discussion followed. [These cases are recorded in our Clinical Section this week.—Ed., *V.R.*]

Mr. Wynne also exhibited specimens taken from calves suspected to have suffered from tuberculosis and invited the opinion of the members concerning them.

The meeting then terminated.

H. V. Hughes, *Hon. Secretary.*

## In Parliament

In the House of Commons on October 28th the Orders for the Second Reading of the Slaughter of Animals Bill and of the Exportation of Horses Bill were read and discharged, and the Bills were withdrawn.

. . . . .

The following questions and answers were recently recorded in the Commons:—

### Livestock Officers

Mr. Glossop asked the Minister of Agriculture the number of livestock officers appointed, whether additional or replacements, during the past three years; what are the qualifications necessary for candidates; and what body is actually responsible for the individual appointments?

The Minister of Agriculture (Major Elliot): One livestock officer has been appointed during the last three years to fill a vacancy caused by death. The qualifications necessary for candidates are a practical knowledge and experience of farming, milk recording and breeding of livestock—especially pedigree stock. Appointments are made by the Ministry after considering recommendations of a Selection Board, consisting of representatives of the Ministry and of the Civil Service Commissioners, by whom candidates are interviewed.

Mr. Glossop: Can the right hon. and gallant Gentleman tell me if any practical agriculturists have been appointed livestock officers?

Major Elliot: The Ministry take such matters into account when considering the report of the selection committee.

. . . . .

### Pig Reorganisation Commission (Report)

Captain Peter MacDonald asked the Minister of Agriculture whether it is proposed to introduce legislation to implement the findings of the Pigs and Pig Product Reorganisation Commission during the present year?

Major Elliot: The recommendations of the Commission are receiving very careful consideration, but I am not at present in a position to make a statement on the subject.

. . . . .

### Coal Industry (Horses and Ponies)

Sir R. Gower asked the Secretary for Mines whether he intends to continue the lectures by His Majesty's inspectors of mines to colliery officials and employees in regard to questions affecting the welfare of horses and ponies employed in mines; and whether special attention will be given to the proper shoeing of the animals and also to good road conditions?

Mr. E. Brown: Subject to their statutory duties, which are onerous and must come first, those of His Majesty's inspectors who have aptitude for work of lecture and safety instruction are encouraged to take part in it, and they do so, often at the sacrifice of their leisure, on many matters, including those mentioned. I am in full sympathy with the general object of this question, and His Majesty's inspectors will continue work along the lines suggested, but I take this opportunity to repeat a suggestion made by my predecessors, that work of this character—particularly among boy pony drivers—could with advantage be further developed from other sources also.

Sir R. Gower asked the Secretary for Mines the rates per 1,000 at which horses and ponies employed underground were killed and injured in the Yorkshire, North Midland, and South Wales divisions in 1924, 1928, and in the year ended June 30th, 1932; the average rate per 1,000 horses and ponies killed and injured by accidents in mines for all coalfields in the same years; and the reasons for any disparity among the rates?

Mr Brown: The particulars are as follow:—

| Inspection Division. | Accident rate per 1,000 horses and ponies employed. | | | | | |
|---|---|---|---|---|---|---|
| | Killed or destroyed in consequence of injury or accident. | | | Injured by accident. | | |
| | 1924. | 1928. | 1932.* | 1924. | 1928. | 1932.* |
| Yorkshire ... ... ... ... | 75 | 70 | 42 | 176 | 152 | 143 |
| North Midland ... ... ... | 48 | 42 | 32 | 193 | 149 | 161 |
| Cardiff and Forest of Dean ... | 46 | 37 | 30 | 126 | 108 | 144 |
| Swansea ... ... ... ... | 42 | 29 | 32 | 98 | 81 | 84 |
| Great Britain ... ... | 47 | 39 | 31 | 125 | 102 | 110 |

* Year ended June 30th, 1932.

The disparity in the rates is due partly to differences in the local conditions of the various coalfields, but a special investigation which was carried out last year made it evident that there is a lack of uniformity in the compilation at the collieries of the present form of return. I have at present under consideration a revision of the form in order that ambiguities may be removed and comparison facilitated.

Sir R. Gower asked the Secretary for Mines whether, in view of the statement made in the 1931 report of the Cardiff divisional inspector of mines as to the quantity of coal-dust produced, particularly in the steam-coal pits of this division, and the necessity to treat all roads with a layer of inert dust, he will make an inquiry as to the effect that coal-dust and inert stone-dust has upon the lungs of the horses employed; and whether these dusts tend to cause any affection or give rise to broken wind?

Mr. Brown: Such inquiry has already been made, including *post-mortem* examinations of the lungs of horses employed in mines in different parts of the country (including South Wales). It has revealed no evidence of the lungs of horses being adversely affected by stone-dust or coal-dust.

Sir R. Gower asked the Secretary for Mines whether the remarks in the last report of the Cardiff divisional inspector of mines to the effect that, generally, road-laying in the mines of that division receives nothing like the attention it deserves, as the frequent derailment of trams affords evidence, and that roads tend too often to become mere tracks and a frequent cause of accidents, refer to horse-haulage roads as well as to rope-haulage roads; and whether special steps may be taken to see that the suggestions of the divisional inspector are carried out in regard to horse-haulage roads, particularly in view of the reminders of the divisional inspector as to the heavy nature of the work done by horses in the mines of South Wales?

Mr. Brown: The remarks quoted by my hon. Friend apply to all types of haulage road in the division referred to. The condition of these haulage roads is already being given the special attention of the divisional inspector and his staff, and that is the reason why he dealt with the matter in such detail in his annual report.

Sir R. Gower asked the Secretary for Mines if he will issue instructions to prohibit the use of metal rivets in the repairing of the harness of horses used in some mines of South Wales, as recommended by the last report of the Cardiff divisional inspector, on the ground that such rivets may bend and chafe the skins of the horses; and will he couple instructions to ensure that all collars and breechings used shall be dry and in proper condition and properly fitting in every case?

Mr. Brown: These matters are already governed by the existing law, which provides that no horse may be worked otherwise than with harness properly fitting and in good condition, and that any defect in the harness likely to cause pain or injury to the horse must be at once reported to the proper quarter. In the event of such a report having been made, that horse may not go out to work again until authority is given by the manager or under manager. The observance of these requirements, as of the many other requirements of the law, receives the constant attention of His Majesty's inspectors.

Sir R. Gower asked the Secretary for Mines whether the general pamphlet setting out directions suitable for the care and treatment of horses and ponies in the mines of the various coalfields that was mentioned to a joint deputation in March, 1931, has now been completed; and if it will soon be published by his Department?

Mr. Brown: The preparation of a pamphlet for horse and pony drivers was attempted, but it was not found possible to frame in general terms a pamphlet sufficiently explicit to be really effective. Attention has been turned therefore to the development of measures taken locally with the same object in view.

. . . . .

Coal Industry (Horses and Ponies Regulations)

Sir R. Gower asked the Secretary for Mines the number of prosecutions for contravention of regulations governing the employment of horses and ponies in mines in 1931 and in 1932 up to 20th October; the number of cases of ill-treatment; the number of convictions; and the amount of fines paid in each case?

Mr. E. Brown: The available information for 1931 is published in the Annual Report of the Secretary for Mines (Table 59). Corresponding figures for 1932 are not yet available.

. . . . .

Royal Parks (Dogs)

Mr. Hutchinson asked the First Commissioner of Works whether any and, if so, which breeds of dogs are barred from entering the Green Park

unless muzzled or on a leash, and for what reason; and what regulations govern the entry of dogs into the other Royal Parks?

Mr. Ormsby-Gore: Greyhounds are not allowed into the Green and other Royal Parks unless muzzled or kept on a lead. A regulation to this effect was made last July in consequence of recent attacks by dogs of this breed on other smaller dogs. I am sending my hon. Friend a copy of the general regulations relating to dogs in the Royal Parks.

Mr. Hutchinson: Does my right hon. Friend think it is fair to discriminate against any special breed of dog in favour of others?

Mr. Ormsby-Gore: They are the only breed of dog which has killed other animals in the Royal Parks lately. The attempt to train racing greyhounds in the Royal Parks ought to be stopped.

### Cattle (Spahlinger Vaccine)

Mr. Groves asked the Minister of Agriculture whether he has received any reports regarding the testing of the Spahlinger vaccine on cattle in this country; and whether any conclusions have been reached regarding that vaccine as a preventive of tuberculosis?

Major Elliot: I have seen the report of the trial of Mr. Spahlinger's vaccine which was carried out in 1929-30. After his public announcement at the beginning of this year as to the method of preparation of his vaccine, Mr. Spahlinger was invited and agreed to supply vaccine for independent test in this country. Arrangements are now in progress for the test, concerning which the Ministry is in communication with Mr. Spahlinger; and it will be undertaken as soon as the supply of vaccine arrives.

# Notes and News

The Editor will be glad to receive items of professional interest for inclusion in these columns.

## DIARY OF EVENTS

Nov. 12th.—Royal (Dick) Veterinary College Contingent O.T.C. Annual Dinner, Edinburgh.

Nov. 14th.—Meeting of the Editorial Committee, N.V.M.A., at 2, Verulam Buildings, Gray's Inn, W.C.1, at 4 p.m.

Nov. 18th.—Meeting of the North Wales Division, N.V.M.A., at Rhyl.

Nov. 23rd.—Meeting of the Section of Comparative Medicine of the Royal Society of Medicine, at the Society's House, 1, Wimpole Street, W.1.

Nov. 25th.—Meeting of the Southern Counties Division, N.V.M.A., at Winchester.

Nov. 25th.—Meeting of the Royal Counties Division, N.V.M.A., at the Royal Veterinary College, Camden Town.

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### R.C.V.S. OBITUARY

Bullen, Robert Crofts. Department of Agriculture, Upper Merrion Street, Dublin. Graduated London, December 19th, 1889; died October 30th, 1932.

### PERSONAL

*Will.* — Shaw, Mr. William Frederick, of Islington, N., veterinary surgeon (net personalty £16,011), £17,563.

*Birth.* — At Kampala Hospital, Uganda, on September 28th, to Josephine, wife of G. S. Cowin, M.R.C.V.S., of the Tanganyika Veterinary Service, a daughter.

*R.S.I. Board of Examiners.*—Mr. E. J. Burndred, M.R.C.V.S., D.V.H., Veterinary Surgeon to the Blackburn Corporation, has been invited to join the Board of Examiners appointed by the Council of the Royal Sanitary Institute. He proposes to accept, subject to the approval of the Town Council.

*Bequest to the R.V.C.*—Mr. George Stanley Harris, of Duddings, Dunster, Somerset, left (amongst other bequests) the sum of £500 to the Royal Veterinary College.

He also directed that all the horses personally used by him for hacking or hunting should be destroyed in the presence of his veterinary surgeon, except brood mares in foal, who are not to be destroyed until the foal has been weaned.

* * * * *

### EDINBURGH DEGREE OF B.Sc. IN VETERINARY SCIENCE

At the recent examinations for the degree of B.Sc. in Veterinary Science conferred by the University of Edinburgh, the following passed in the respective examinations:—

*Chemistry.* — Phillip Bannister, William M. Brownlie, Reginald Ford, Stanley T. Harriss and Kenneth M. Jobson.

*Physics.*—William G. Dent, Kenneth M. Jobson, Norman W. Keith, Duncan J. Macpherson, George Rutherford and John R. Ward.

*Botany.*—John R. Ward.

*Embryology.*—George F. Defferary, Charles A. P. Donaldson and John R. Ward.

*Anatomy.*—Arthur J. Adams, James Baird, Robert W. Bowman, Archibald W. Chalmers, Percy Durran, James K. S. Elmslie, Robert M. Gambles, James A. McKinnon, Samuel G. Wilson and Alan R. Withers.

*Physiology.*—Archibald W. Chalmers and Ian S. M. Taylor.

*Sanitary Science and Veterinary Hygiene.*—James Graham, Alexander Kelly, George B. Lewis and William Simpson.

* * * * *

### RETURN TO HORSE LABOUR

In a Press announcement, the National Horse Association of Great Britain states that the economic depression, and the need for transport charges to be cut down to the minimum, has resulted in horses for transport rapidly returning to favour throughout the world.

In Australia animals that could previously be bought for £10 are now fetching £30 and £40 apiece, while the better class of working horses are being sold for as much as £60 to £70. The recently published statistics for Canada indicate a total of 3,115,582 horses, the majority being in Saskatchewan with 997,132 horses, while it is interesting to note that 49,902 farms have between 10 to 15 horses apiece, and that in many parts, traps are taking the place of motor cars.

The scarcity of petrol in Chile has resulted in a "Back to the Horse" movement, and the Central Bank of Chile was last month forced to touch its gold reserves to import petrol. In consequence of the difficulty of getting petrol and

the much higher cost of motor transport, 250 modern motor refuse trucks belonging to the Santiago Corporation were recently substituted by horse-drawn vehicles.

In the Argentine over 1,000 attended the annual sale of horses from the stations controlled by Sir Sydney Kidman in August last, buyers coming from all states, and even from India. The prices realised were good, averaging £14 per head, a considerable increase over previous years.

The continued use of the horse for short distances is likely to prove of considerable advantage to farmers, and to agriculture generally, in as much as it is estimated that every 300,000 horses displaced by mechanical appliances represents a loss to farmers of £12,000,000 in agricultural products.

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## FOOT-AND-MOUTH DISEASE: THE RIGHT POLICY

Foot-and-mouth disease, so much to the fore at the present time, has provoked in the Press a good deal of adverse and unwarrantable criticism against the veterinary advisors to the Ministry of Agriculture and Fisheries; but there is no question that they have adhered to the correct policy, which is that of 'stamping out,'" writes Principal Hobday in *The Saturday Review*.

"We have much to congratulate ourselves upon when we compare our position with that of other European countries, as the cost to Holland, France, Belgium, Denmark and Germany amounts to tremendous sums every year, and they never get any further forward, having the disease always endemic. The taxpayer has only to think what it would mean to England if the disease were allowed to spread, as milk from cattle affected with foot-and-mouth-disease must not on any account be consumed by children or invalids, or given even to pigs or other animals; and again, too, recovery from an attack does not confer any definite or long-standing immunity, so that a cow may still remain a carrier.'"

Principal Hobday concludes his popularly written article ("Veterinary Science and the Nation's Health") with a plea for extended Governmental support for the clinical and research activities of the profession, and for the co-operation, on behalf of the Royal Veterinary College, of philanthropists who may be prepared to help towards the endowment of one or more Chairs.

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## LICENSING OF BULLS

"Surrey has been active in pressing forward with a voluntary scheme for the improvement of livestock as a forerunner to the Bull Licensing Act, which becomes law in England and Wales on July 31st, 1934," says the Agricultural Correspondent of *The Times*. "It will be recalled that the National Farmers' Union has undertaken to use every practicable means to effect improvement by voluntary action before the law comes into operation. The Surrey county branch believes that a large proportion of the bulls used in dairy herds are satisfactory, but it is suggested that the agricultural committee of the Surrey County Council should be approached with a view to obtaining their permission to allow their veterinary inspectors, who already examine dairy herds, to see the bulls in use and to report on any unsatisfactory animals to the county livestock committee of the N.F.U. It is then proposed that the livestock committee should point out the desirability of avoiding compulsory measures if possible and where necessary arrange for further premium bulls to be made available. It is further suggested that the committee might keep a register of suitable bull calves in the county and organise an annual sale at Guildford, or elsewhere, of pure-bred bulls.

"This is an interesting development which deserves the attention of other counties. It should be noted that the Surrey N.F.U. believes that the veterinary inspectors of the county council could carry out the necessary work as ably and tactfully as anyone else, since there is general confidence in their sound common sense and impartiality."

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## MEDICAL RESEARCH

At the House of Commons recently Sir Walter Morley Fletcher addressed the Parliamentary Medical Committee and other members interested in medical research. His subject was medical research under the Privy Council, and he explained how the Medical Research Council had agreed with the manufacturers of pharmaceutical chemicals to investigate any substances to which they drew attention. This was done on condition that the report was published. The manufacturers accepted this condition, and many substances had been reported upon. In a general statement on medical research he explained the comprehensive and effective investigations into vitamins, tuberculosis, rickets, and the filterable viruses. He remarked that malaria was gaining ground despite the researches of Sir Ronald Ross and Sir Patrick Manson.

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## ROYAL AGRICULTURAL SOCIETY

The Duke of Devonshire, it was announced at the council meeting of the Royal Agricultural Society of England on Wednesday of last week, will be nominated as President of the Society for 1933 (when the show of the Society will be held at Derby) in succession to Lord Mildmay of Flete.

It was stated that the Society's accounts would show a loss of £7,800 on this year's show at Southampton, which was less than had been anticipated.

The request of the Ayrshire Cattle Society for fuller classification at the Royal Show for that breed in view of its extension in England was acceded to.

For the next year the Welsh pig (a breed favourably referred to in the report of the Pig Industry Reorganisation Commission) is to be reinstated at the Society's show. Cumberland pigs are also to have a classification.

It was stated that in future an outbreak of foot-and-mouth disease in any part of this country, if localised, would not be an absolute bar to the export of pedigree stock to Canada. Sir Douglas Newton expressed the hope that this concession might lead to a more active demand for our pedigree animals.

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## LOBELIA, CATS AND ASTHMA

A correspondent sends us the following from *John O'London's Weekly*:—

"Mr. P. O'Connell (Ceannanus Mor, Co. Meath) writes:—

"Recently I read a Press report referring to the use of lobelia in cases of asthma. Some time ago I noticed that my own lobelia flowers were being snipped off, and I was much surprised to find that the culprits were cats.

"The cat is subject to asthma; can it be that some form of animal reason induces it to seek a suitable herb for its remedy?"

and observes:—"With reference to this account, it would be interesting to read what veterinarians think. Wallis Hoare states of lobelia that it is rarely used in veterinary work, and Winslow uses it as an injection against tetany in horses."

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### CLYDESDALE SOUNDNESS

At a meeting of the Council of the Clydesdale Horse Society satisfaction was expressed at the results reported by the Department of Agriculture regarding the veterinary examination of stallions for the year 1932. Of the 373 horses for which licences were applied, 366 passed. The percentage of refusals ten years ago was 3·9; this year it was 1·9, the second lowest on record.

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### COLONIAL VETERINARY SCHOLARSHIPS

The following list gives the names of candidates selected for Colonial Veterinary Scholarships. Holders of these scholarships are, subject to vacancies being available, normally offered appointments in the Colonial Service on completing satisfactorily their course of training:—Harbour, H. E. (Cambridge); Hart, A. W. (Cambridge); McCubbin, W. J. (Edinburgh); Ware, J. McW. (Aberdeen).

## Correspondence

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

All correspondence must bear the name and address of the contributor for publication.

The Editor does not hold himself responsible for the opinions of his correspondents.

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### THE ÆTIOLOGY OF "CANINE HYSTERIA"

To the Editor of the Veterinary Record.

Sir,—I have awaited with eagerness and read with much disappointment the published report of Mr. W. H. Griffiths' paper on Specific Canine Hysteria and the subsequent debate at the Midland Counties V.M.A. meeting at Birmingham on August 31st.

This disease is one which is causing very grave anxiety amongst dog-owners throughout the country and I hoped the discussion of this paper would throw some light upon it. Comment amongst dog-owners that the veterinary profession knows nothing about it is general and the manufacturers of quack remedies are reaping a rich harvest. This is not as it should be. There must be numbers of practitioners who have given this disease a lot of attention and thought and who have by this time compiled a very considerable amount of knowledge of the clinical aspect of it; it is high time, therefore, that the profession, in its own interests and for its own reputation made some definite and exhaustive investigation into the ætiology of this disease. The generally-expressed opinions, both lay and professional, are often fantastic in the extreme, and at least one article to which one of the professional journals devoted considerable space read more like an extract from the musty parchment of a work on dæmonology by some mediæval necromancer than a scientific article from the pen of a professional man in the twentieth century!

One can understand the reluctance of many observers to give public expression to their views upon so obscure a subject and the Midland Counties V.M.A. are entitled to much credit for having "opened the ball," however profoundly one may disagree with their ideas. Personally, after having attended a very large number of cases during the past three and a half years, I find myself entirely at variance with the views expressed by the essayist and by those who took part in the subsequent discussion, and I would welcome the formation of a Select Committee by the N.V.M.A. to enquire into the whole subject. I would suggest the issue of a catechism on the subject to all veterinary surgeons interested in canine practice in order to obtain, by a simple method of question and answer, the considered consensus of opinion on the main clinical points, for examination and report thereon by a representative committee of clinicians and pathologists who have specialised in canine work.

At the risk of being classified amongst that group of mortals who are reputed to venture recklessly into realms in which the celestial beings fear to tread, I would like to set forth my personal views upon the subject. In the first place, I am convinced that this disease is both contagious and infectious, although a very large number of dogs appear to be immune. Circumstances have constantly arisen to convince me that recovered dogs, and dogs apparently immune, *i.e.*, dogs which have never shown symptoms of the disease, may be carriers.

Secondly, I am quite certain that parasitic infestation of the ears has nothing whatever to do with the disease. Not only are the symptoms quite distinct from those set up by any irritation of the external or middle ear (a congestive delirium and not a vertigo being the symptoms exhibited), but, in order to disprove this fallacy, I have personally examined swabs from hundreds of ears and submitted one hundred such swabs to an expert entomologist who has verified all my findings. The supposed good results obtained by filling the ears of gun-dogs with a certain proprietary powder arose from the partial deafness thus caused. At my request several shooting men have tried the effect of inserting a small plug of cotton-wool into their dogs' ears and obtained the same preventive result!

Thirdly, I do not believe that the disease arises from any dietetic errors, nor from any mineral deficiency, nor from avitaminosis: I have suspected all these in turn, but have encountered the disease under all and every sort of condition of diet and environment. Nor do I believe that the highly nervous breeds, in-bred dogs or delicate dogs are any more prone to it than lethargic animals or robust mongrels. I have had many cases in sturdy mongrels, in powerful mastiffs and bull-mastiffs and in that most placid of breeds, the Labrador retriever. Nor can I accept the imitative theory. I can fully imagine, and have on several occasions witnessed, apparently calm dogs going off into wild delirium when one of their kennel-mates has done the same, but am definitely convinced that this so-called imitation is merely the effect of an exciting cause upon dogs already infected by this disease.

To pass from negative to positive convictions: I regard this disease as a circulatory disease resulting from a sudden engorgement of the blood-vessels of the brain and setting up an instant "splitting headache." It is not truly a nervous affection at all. In the course of five *post-mortem* examinations which I carried out with the most meticulous care, and each of which occupied all the time I could spare out of several working days, I removed the calvarium and the whole of the spinal arches without damaging the brain or

cord and found in every case a quite obvious constriction of the central vein at the junction of the cerebellum and the medulla. The vein looked as if it had been ligated.

The rapidity with which the rate of the heart beats of a perfectly healthy dog are doubled or trebled by the influence of any excitement, emotion or rapid exercise is a well-known physiological fact and I feel confident that this rapid flow of blood to the extremities, coupled with the interference with its return, is responsible for the symptoms shown by dogs suffering from the disease which has come to be so widely known by the ridiculous and misleading name of "hysteria."

Further, I believe that the disease is set up by a virus. On several occasions the outbreak of the disease has followed the hypodermic administration of material for immunisation against distemper and it has been assumed that such material was accidentally obtained from sources contaminated by this infection.

From the *post-mortem* examination of a dog which had gradually and slowly recovered from from this disease I am of opinion that such recoveries, extending over a long period of time, arise from the establishment of a collateral circulation replacing the original one which has become obliterated.

In the foregoing I have made free use of the personal pronoun as I am setting forth only my personal convictions, with which many of my colleagues may disagree, and I have been purposely dogmatic in the hope of exciting controversy and an argument which may do something to shed light upon an obscure subject.

Faithfully yours,

David Eric Wilkinson.

Oakwood,
Chigwell, Essex.

*November 5th*, 1932.

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## SO-CALLED "ACID-FIRING" *VERSUS* ACTUAL CAUTERY

To the Editor of the Veterinary Record.

Sir,—I was very interested in the subject of Mr. K. A. Miles' paper published in the *Veterinary Record* of November 5th.

As an experiment I have on various occasions applied strong sulphuric acid to the horse's leg. I firmly believe that its use is in no way comparable to the application of the hot iron, that is, if one intends to use it to produce the same effect.

Provided that one uses the correct size of needle for the injection of the anæsthetic and some practical method of restraint, the use of the iron on any class of animal, and on either fore or hind limb, is a fairly simple operation to carry out and often very effective.

If the actual cautery is used with regular uniformity until that serous-like condition develops along its track then it is deep enough to produce a cicatrix far greater and firmer than the application of any corrosive acid can do, and so helps to attain in the end that callus-like condition of a fired leg or joint, which is so essential for its ultimate success.

I agree with Mr. Haywood when he says the term "Acid-Firing" is a misnomer.

Yours faithfully,

Michael C. S. Sadler.

Walpole House,
Burton-on-Trent.

*November 7th*, 1932.

## THE INTRADERMAL TEST

To the Editor of the Veterinary Record.

Sir,—In my opinion this test is 100 per cent. reliable, but the technique is extremely delicate and to become efficient in its application one requires *considerable experience*.

This experience may be obtained by applying the test to a number of bovines, and making, say, a hundred *post-mortem* examinations of those which have *reacted*. This last word is the stumbling block: What constitutes a reaction? Certainly *not* the increased measurements—10 or 12 m.m. may be a reaction while 15 or even 19 m.m. may not be. it entirely depends upon the *character* of the swelling.

I very strongly urge every practitioner who intends to adopt this test, to be quite sure of his technique before doing so, either by careful *post-mortem* examinations of a large number of his reactors, especially those showing small increased measurements, or by doing a fortnight's course with a gentleman who is capable of imparting this very necessary knowledge.

I have repeatedly voiced my views on the subject at many of the N.V.M.A. Divisional meetings which I have attended, and warned my hearers what I feared might happen unless the practitioner took the trouble to make himself thoroughly familiar with the technique.

In this direction, I feel that the following extracts from the Annual Report of the Chief Medical Officer of the Ministry of Health for the Year 1931, may be of considerable interest to the general practitioner:—

"The double intradermal test, when applied by a skilled veterinarian, under ordinary field conditions, is much more reliable than either of the other methods. Imperfect knowledge of the technique, and the incorrect interpretation of the result, combined with the employment of tuberculins of varying or unknown potency, continue to give rise to conflicting results and to foster criticism of the test.

"In the future it is hoped that all veterinarians who carry out the test will make sure their technique is in all respects identical with that set out in the report by the Medical Research Council (Special Report Series No. 122, p. 59), and will consider their findings in the light of the recommendations made in that report in order that correct interpretations may be arrived at. . . ."

"Scrutiny of the reports on the Tuberculin Tests received at the Ministry not infrequently leads to the presumption that the technique of carrying out the test is faulty or that the conclusions arrived at are erroneous. . . ."

"In one instance where a special test . . . was carried out (by the Consulting Veterinary Surgeon of the Ministry) the findings of the expert who had rejected a high proportion of the animals previously regarded as non-reactors, were questioned; so convinced were the owners of the herd that several of the rejected animals were not tuberculous that they allowed two which seemed to them least likely to be affected to be slaughtered and subjected to a careful *post-mortem* examination.

"These *post-mortems* were carried out in the presence of veterinary experts and others at the Royal Veterinary College, and in each case evidence of tuberculosis was found in the carcass.

"Many such special re-tests of herds which have terminated unfortunately for owners, would have been unnecessary if the local veterinary surgeons had been more thoroughly acquainted

with the technique of the test before undertaking such work.

"Not without reason has it been urged that no veterinary surgeon should be allowed to carry out this test, at least on licensed herds, unless he has had special experience and training in its application and technique."

Reference was made to this Report in the *Veterinary Record* on p. 940 in the issue of August 13th, but it did not sufficiently stress this most important subject.

The country practitioner is gradually losing most of the plums of his practice, and in view of the above-quoted terms of the Report of the Chief Medical Officer of the Ministry of Health surely we have only ourselves to blame.

Let me urge the general practitioner to take steps to render his position secure, if he has not already done so, before it is *too late*.

Yours faithfully,
J. C. Coleman.

Swindon.

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## INSTALLATION OF WATERING FACILITIES AT THE ROYAL VETERINARY COLLEGE.

To the Editor of the Veterinary Record.

Sir,—At a meeting of the Executive Committee of the Metropolitan Drinking Fountain and Cattle Trough Association, held to-day, it was decided that under the rebuilding scheme of the Royal Veterinary College, Camden Town, London, the Association would accept the responsibility for the installation of all drinking water facilities for the patients under treatment in the various wards of the Hospital clinic.

It is felt that this will have the appreciation of the subscribers to the Association and of the public who are lovers of animals and who have sympathetic consideration for them in their sickness and disability, and will especially meet the wishes of owners of animals who are not in a position to pay fees for the treatment of their animals and for whom the new Beaumont Animal Hospital is being built and equipped as part of the general rebuilding scheme.

The installation will take the form of laying on the water to the wards, the supply of separate drinking receptacles for each loose box for horses and other larger animals, for each kennel for dogs, and other small animals, not forgetting birds. A bubble fountain for the use of students and others frequenting the College either as visitors or in charge of patients is to be erected in the quadrangle of the College.

The Committee is particularly desirous that subscribers to the Association, and those Institutions and persons generally who have the cause of suffering animals at heart, should share in this act of human kindness. An initial grant will be made by the Association, and it is hoped that its very laudable efforts will receive the public support they deserve in recognition of those many acts of kind consideration for human beings and animals which the Association has shown since its inception in the year 1859, not only in the Metropolitan area, but in the provinces and abroad, in the provision of drinking fountains and cattle troughs. Contributions may be sent to Mr. E. H. Tilley, General Secretary, Metropolitan Drinking Fountain and Cattle Trough Association, 70, Victoria Street, Westminster, London, S.W.1.

Yours truly,

H. W. Tinné, *Chairman*,
F. Hobday, *Treasurer*.
E. H. Tilley, *Secretary*.

Metropolitan Drinking Fountain and
Cattle Trough Association,
70, Victoria Street,
Westminster, S.W.1.

*November 7th*, 1932.

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*The Editor acknowledges with thanks the receipt of the following:—*

Communications from Messrs. F. T. Harvey (St. Columb) and R. Hudson (Retford), Major Hamilton Kirk (London), Mr. G. S. Muir (Woburn) and Major D. S. Rabagliati (Wakefield).

# Diseases of Animals Acts, 1894 to 1927

## SUMMARY OF RETURNS

| Period. | Anthrax. | | Foot-and-Mouth Disease. | | Parasitic Mange. | | Sheep Scab. | Swine Fever. | |
|---|---|---|---|---|---|---|---|---|---|
| | Outbreaks confirmed. | Animals attacked. | Outbreaks confirmed. | Animals slaughtered as diseased or exposed to infection. | Outbreaks reported by the Local Authorities. | Animals attacked. | Outbreaks confirmed. | Outbreaks confirmed. | Swine slaughtered. |
| | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Period 16th to 31st October, 1932 | 10 | 11 | 1 | 5 | 4 | 5 | 32 | 57 | 31 |
| Corresponding period in | | | | | | | | | |
| 1931 ... ... ... | 15 | 15 | — | — | 4 | 5 | 9 | 85 | 38 |
| 1930 ... ... ... | 10 | 10 | — | — | 2 | 2 | 24 | 88 | 55 |
| 1929 ... ... ... | 26 | 27 | 4 | 263 | 5 | 6 | 27 | 252 | 99 |
| Total 1st January, to 31st October, 1932 ... ... ... | 278 | 342 | 13 | 1,088 | 112 | 173 | 206 | 1,387 | 673 |
| Corresponding period in | | | | | | | | | |
| 1931 ... ... ... | 395 | 440 | 97 | 10,649 | 124 | 221 | 233 | 1,626 | 688 |
| 1930 ... ... ... | 299 | 330 | 7 | 299 | 181 | 274 | 334 | 2,019 | 899 |
| 1929 ... ... ... | 376 | 461 | 32 | 3,018 | 182 | 353 | 419 | 2,209 | 1,257 |